

LIS.

sta fa

Pences ild.

Day!

BALTIMORE, MARCH 31, 1888

EUREKA PACKING JAS. SMITH & CO. Works, 413 to 421 Race St., Cor. of Crown.

MANUFACTURERS', MILL and ENGINEERS'

Hydraulic and Locomotive Packing,

Office & Store, 137 Market St., Philadelphia. OIRQULARS AND PRIOR-LISTS MAILED UPON APPLICATION

lling Outfits for Flour and Meal WE MAKE ROLLS AND PORTABLE MILLS COMPLETE.

Manufactory Established in 1851. Pamphlets with Prices Mailed Free.

NORDYKE & MARMON CO., INDIANAPOLIS, IND



MORSE ELEVATOR WORKS.

MORSE WILLIAMS & CO-CLEW A MORRE

rers and Builders of HYDRAULIC STRAM.

BTLEVATORS

With most approved Safety Devices.

BY Dumb-Waiters, Automatic Hatch-Deer

Works: FRANKFORD AVENUE,

Works: FRANKFORD AVE., WILDEY & SHACKANAXON STS.

Branch Office, 108 Liberty Street, NEW YORK.

Report of the

AQUEDUCT Commissioners.

PROGRESS (by actual figures from Tubis 8.)

ge weekly progress in best no headings that used Ingersoll Drills exclusively (omitting all idle ft.

hely progress in best to headings that used other drills exclusively (emitting all idle weeks) 35.73 INGERSOLL ROCK DRILL CO.,

10 Park Place, New York City.



GORTON & LIDGERWOOD CO., 96 LIBERTY STREET, NEW YORK.





OVER 300,000 NOW IN USE. THE LIGHTEST, STRONGEST, BEST BALANCED and CHEAPEST in the WORLD.

Shafting, Hangers, Couplings, &c.

MEDART PATENT PULLEY CO., Stores: 99 to rot W. Sected St., Cincinnett. og & et 6 5. Can

SWETT, MANUFACTURER OF BAND SAWS, OF SOUTH CANAL ST. EVERY BLADE WARRANTED



H. B. SMITH MACHINE CO.

Send for catalogue and visit our extensive warerooms if possible.

925 MARKET STRE

PHILADA, PA., U. S.

-DAVID BOYLE, -

521 W. MONROE STREET, · · CHICAGO, ILL.

PATENTEE AND BUILDER OF THE

AND REFRIGERATING APPARATUS.

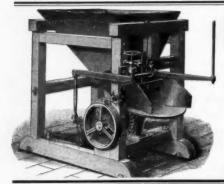
The Most Simple, Reliable, Durable and Economical in Existence.

WHAT PEOPLE SAY.

"I consider it the greatest-improvement that has ever been made in breweries."—FRED. PABST, President Ph. Best. Brewing Co. "We are thoroughly satisfied with your machine, and we believe it is superior to any other in the market to-day."—HENRY G. KUHRT, President Atlanta City Brewing Co., Atlanta, Ga.

Estimates for Ice or Refrigerating Machines furnished on application.

Refer to over 125 Machines in successful operation.



Saw Mills, Cotton Presses, Engines, Boilers, Water Wheels,

* Mining Machinery, *

CORNISH PUMPS, CRUSHERS, AND STAMP BATTERIES.

Challenge Ore Feeders, Lidgerwood Hoists, Embrey Tables.



CHA rji First

W

23

0

Pr



National Pulley Covering Co.

BALTIMORE, MD



ESTABLISHED 1850.

To the Stoye and Hardware Trade:

RUBBER

Rubber Belting - SE SECTE XHALLE BURNE SURVEY



VULCANITE

Saw Gummer DOES NOT CASE HARDEN.



Steam and Water Hose.

RUSBER "TEST" HOSE, made of Vulcanised Para Rubber and Carbolised Duck. Cotton "CABLE" HOSE, Circular, Woven, Saamisen, Antisopsic, for the use of Steam and Hand Fire Engines, Force Pumps, Mills, Factories, Steamers and Brewers' use.

Patent Elastic Rubber Back Square Packing

New York Belting and Packing Co. J. H. CHEEVER, Treas.

Sole Mfrs., 15 PARK ROW, NEW YORK.



BOILER and PIPE COVERINGS.





FIRE PROOF, Light and Cheap.

EASY TO APPLY.

MINERS and MANUFACTURERS, BRAIDED PACKING, MILL BOA SHEATHING and SPECIALTIES.

CHALMERS-SPENCE CO., 419-425 Eighth Street, New York.

TAYLOR & SONS,

COLUMBIAN IRON WORKS.

23 to 39 Adams Street. BROOKLYN, N. Y.

Oil Works Machinery,

HYDROSTATIC PRESSES and GENERAL MACHINERY, Engines, Boilers, Castings, and Machine Making.

ADAMANTINE SHOES and DIES



For Stamp Mills.

Cor. Kent Ave. & Keap St., BROOKLYN. N. Y.





Davidson Steam Pump.

Simple, EFFICIENT, Reliable,

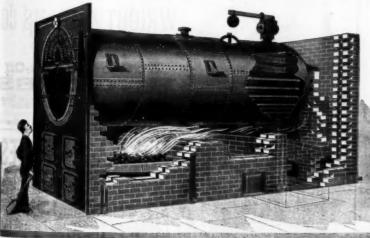
DUTIES.

ALL SIZES, SINGLE OR Duplex. COMPOUND

DAVIDSON STEAM PUMP CO., 77 Liberty St., NEW YORK.

EDWARD KENDA

CHARLES RIVER Proprietors of WORKS. CAMBRIDGEPORT, MASS.



Steam Boilers 🏿 Engines,

HEATERS, ECONOMIZERS, RENDERING STACKS, JACKET KETTLES, AND GENERAL PLATE AND SHEET IRON WORK.

The following Representative Parties in the South are using our Boilers:

Steam Boiler Plants for Mills our Specialty.

CORRESPONDENCE WITH MILL OWNERS AND ARCHITECTS SOLICITED.

Mining and Contractors' Hoisting ngines,

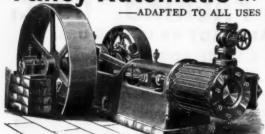


DOUBLE OR SINGLE CYLINDERS. DOUBLE OR SINGLE DRUMS, STRAIGHT OR CONE SHAPED, SMOOTH OR GROOVED FOR ROPE, FAST DRUMS with REVERSE LINK. FRICTION DRUMS without LINE, FRICTION DRUMS WITH LINK. DOUBLE OR SINGLE GEAR.

Send for Ostalogue C.

D

Valley Automatic of Engines ADAPTED TO ALL USES REQUIRING.



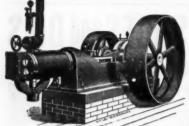
Superior Regulation and

Economical Use of Steam. Send for Illustrated Catalo

Valley Iron Works, WILLIAMSPORT, PA.

Stocks carried by
Wm. C. Codd, Baltimore, Md.
Jas. Mahony & Son,
New York City.
Ivens & Son Machine Co.,
New Orleans, La.

Icintosh, Seymour & Co., Auburn, N. Y.



Automatic Cut-off Engines

conomy in Fuel Consumption,
Close Regulation,
Great Durability and Simplicity,
Perfoct Workmanship and Design.
Unrivalled in these qualities, our engines are suitble for all purposes, especially where high speed and
fficult service are required, as in electric-light plants,
illing mills, etc. Send for Illustrated Catalogue.

Send in Justine Carlogue.

Send II A GENTS:

Young & Thomas, 4s Cortlandt St., New York City.
Harlan Page, 143 E 145 N. 3d St., Philadelphin, Pagmith & Courtney, 1410 Main St., Richmond, Va

ENGINE Co. Erie, Pa.

Awarded THREE COLD MEDALS by the World's Industrial and Cotton Centennial Exposition of New Orleans, La.

MORE THAN 2700 IN USE. Mauufacturers of PORTABLE&STATIONARY



Cleveland Ship Building

Cuyahoga Steam Furnace Co. CLEVELAND, OHIO.

BLOWING ENGINES

Blast Furnaces Steel Plants

-A SPECIALTY.

OUR NEW BLOWING ENGINE

NOW FOR SALE, SIZE; ler.36x48 | Air Cylinder

STEAM HELVE HAMMERS,

Engines and Boiler

Carrespondence Solicited

JARVIS PATENT FURNA



FOR SETTING STEAM BOILERS.

Bonomy of Fuel, with increased capacity of Steamer. Like the Siemens Process of Making el, it utilises the waste gases with hot air on top of are. Will burn all kinds of waste fuel without st. including Slack Coal. Sawdust, Logwood Chips Send for Circulars.

Jarvis Engineering Co., A. F. UPTON, Treas. and Gen'l Manage 61 Gliver St., Boston, Hass. DUTHERN REFERENCES:—

Bagle & Phenix Mfg. Company. Columbus, Ga. Anniston Mfg. Co., Anniston Ala. J. P. King Mfg. Co., Augusta, Ga. Rose Mining Co., Charleston, S. C., Maryland Favoraent Co., Baltimore, Md. Brush Blectric Light Co., Baltimore, Md. Bitrick, Matoaca and Battersea Mfg. Co's., Petersburg, Va. Rasin Fertilizing Co., Baltimore, Md. Tanner & Delaney Hngine Co., Richmond, Va. Sibley Mills. Augusta. Ga.

Graniteville Mfg. Co., Graniteville, S. C., Charleston Bagging Co., Charleston, S. C., P. H. Mayo & Bros., Richmond, Vs. Phosphate Mining Co., Beaufort, S. C. Brush Swan Electric Light Co., Norfolk, Vs. Columbus Ise & Refrigerator Co., Columbus, Gs. Lenoir Manufacturing Co., Lenoir, Bast Tennessee.

Tennessee. Vanciouse Mill, Graniteville, S. C. Charleston Electric Light Co., Charles

For First-Class Steam Boilers, Stacks, Sheet Iron and Plate Work, Oil and Water Tanks.

Address Enterprise Beller Oc., Youngstown, O.

ECLIPSE CORLISS ENGINES.

ompany, Engineers, Builders

Condensing, No.

densing & O ice-Making and

or Ice-M Circular

Special Automatic Electric Light Engines, Steam Boilers, Tracti and Portable Engines, Saw Mills. Send for our General Catalogue.





WE CHALLENGE THE WORLD

) FOR THE LOWEST-PRICED FIRST-CLASS (

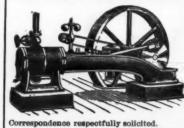
GINES & BOILER



GEO.W.TIFFT, SONS & CO BUFFALO, N. Y.

5 to 500 H. P. Special Stock Sizes to 50 H. P., both Stationary and Semi-Portable.

A few good Second-Hand Engines and for sale at an astonishingly low figure. M to make room for stock. Correspondent Mention this paper.



WRIGHT & ADAMS CO

Automatic Cut-Off



Adapted to Heavy, Continuous Work. Cost no more than ordinary Engines. For descriptive circulars, address

Chandler & Taylor, Indianapolis, Ind.

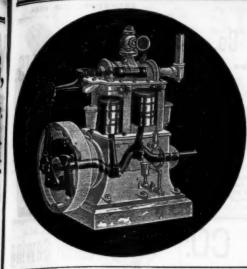
McLAUGHLIN'S IMPROVED ADJUSTABLE STEAM FLUE CLEANER



d for catalogue G.
ED. G. McLAUGHLIN MANUFACTURING M.
Street. Boston, Man.

Boiler Scale

The Gleason Boiler Compound Co., Cleveland, Ohio.



The Single-Acting and Self-Lubricating Principles

and represent the Highest type of

COMMERCIAL ECONOMY.

E WESTINGHOUSE MACHINE CO. Pittsburgh, Pa.

Aultman & Taylor Company, represented by Roberto & Co., City of Mexico, Nexico; Stevens, Corwin & Co., ambers Street, N. Y. City, with houses in Panama, C. A.; Buenos Ayres, Guyaquil and Valparaiso, S. A.

SELLING DEPARTMENT

Westinghouse, Church, Kerr & Co.

Fairbanks & Co.

302 and 304 Washington Avenue...
 302 and 304 Washington Avenue
 St. Louis

 1312 Union Avenue
 Kanaas City

 1330 Seventeenth Avenue
 Denver, Col

Utah and Montana Machinery Co.

.... Butte, Mont.

Parke & Lacy.

21 and 28 Fremont Street..... San Francisco 38 and 35 N. Front Street.......Portland, Or.

The D. A. Tompkins Co.

36 S. College St...Charlotte, N. C. 46 S. Pryor St....Atlanta, Georgia.



& CO.

Sizes and

CO

Ind.

Acme Automatic Engine, With BRYANT'S Patent Safety Boiler.

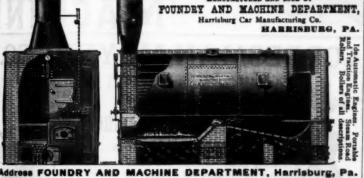
Rochester Machine Tool Works, BUILDERS, ROCHESTER, N. Y.

FOR CATALOGUE.

UTOMATIC ENGINE.



PATENT



Advertise in the MANUFACTURERS' RECORD.

Tre Baldwin Gas Engine



The Simplest, most Efficient and Steadiest running

Gas Engine

Ever Built.

Adapted for Electric Lighting

AND ALL INDUSTRIAL PURPOSES.

OTIS BROTHERS & CO.

Elevators and Hoisting Machinery,

New York. Boston. Philadelphia. Pittsburgh.



Universal IIIII

This machine for variety and range of work has no equal, and for workmanship it has no superior. It will be found very valuable for builders of Locomotives, Portable and Stationary Engines and Pumps; Machine Tool Builders and General Machine Shops, as work can be done to better advantage and with greater precision than on Planers, Lathes, Shapers, etc. It is designed for Boring, Facing, Turning, Milling, Profiling, Key-Seating, Splining, Rack Cutting (any length,) Gear Cutting with the Vertical Attachment up to six (6) feet in diameter, etc. Weight, 6,000 Pounds. Smaller sizes of this machine are built. Circulars with full particulars on application.

PEDRICK & AYER,

1025 HAMILTON STREET, PHILADELPHIA, PA.

Saw Mill Machinery

COLUMBUS, OHIO.

"I am running one of your Chisel-Tooth Saws. Have been working in saw mills for pass years, but never found a saw equal to yours. Please send me a catalogue. W.A. Wilsiams. Wiss & Neison, Jonesboro, Ind., Feb. x, 1837, write: "The 64-in. gauge solid saw is gs plendid work; inclosed find draft for same. Make and ship us re gauge, same hand as w, soon as possible.

B. R. Reinwards, jacksonville, Fla., writes: "Saw maintains and saw and say and

The Above Outs Show Our Champion Chisel-Tooth Saw.

JA MES OHLEN & SONS COLUMBUS. OHIO



Scroll Sawin MACHINE.

INCORPORATED

BEACH'S NEW

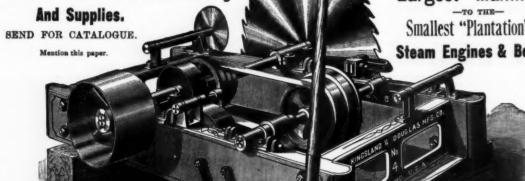


Largest "Mammoth"

Smallest "Plantation" Mill.

Steam Engines & Boilers.





WOOD WORKING MACHINERY

Planing Mills, Box, Sash, Door and Blind Factories, Furniture, Cabinet and Chair Works, Car Works and General Wood Workers.



MACHINE CO., FITCHBURG, MASS. 44 Water St.,

CORDESMAN, MEYER&CO.

171 and 173 West Second Street, CINCINNATI, OHIO.

Wood Working Machinery OF EVERY DESCRIPTION.

aning Mills, Furniture and Chair Fact Carriage, Wagon and Agricultural Works.

Write for our latest Catalogue and Price List. Corresponds solicited.

B. ROGERS & CO



IMPROVED SWEEPSTAKES PLANER, MATCHER AND MOULDER

IS SIMPLE, STRONG AND DURABLE.

Never Fails in Yellow Pine or Hard Lumber.

Furniture Factory Machinery made by us. Address
HERMANCE, WILLIAMSPORT, PA., U. S. A.

Wood-Working MACHINERY.

laners, Moulders, Her ing, Tenoning, Has Planing Machines. land and Scroll Set Wood Lathes, &c.

Manufactory at Norwich, Com. Wareroom, 109 Liberty St., N Y.

Veneer Machinery for Furniture Factories, Etc.



ong, Solid, Durable, Accurately ade, Double Drivers, Positive Feed, Complete Adjustment, Automatic Change of

Painesville, Ohio.



Capacity 15,000 to CIRCULAR SAW MILLS planned and furnished

ENGINES, 15 to 800 BOILERS OF IBON

BAND SAW MILLS, With Priorition or Bloam Food.

STEARNS' Fractional Head Blocks, Edgers, Cut-Off Saws, Trimm The Wilkin Pony Gang. No foundation. Capacity 20,000 to 40,000 feet of Flooring per day. Wilkin Heavy Gang Baw Mill for large mills. Lath and Picket Mills, Boltess, Conveyes,



XUM

& V. C. STILLMAN

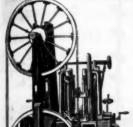
♦ Wood-Working ♦

MACHINERY

Woodworth Planers and Matchers,

Machines, Mortisers, Circular Saw s, Rotary Planers for Wheel and Carriage Makers.

Shafting, Pulleys, &c., to Order.



Sawing

INE.

r lin

NANAMES

0.

ng

Conn

The Egan Company's No. 5; Band Resaw

Blade 4 inches wide, Wheels 5 feet in diameter.

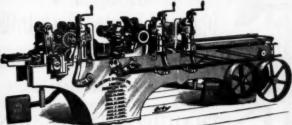
THE EGAN COMPANY.

Wood-Working Machinery

228 to 248 W. Front Street, CINCINNATI, OHIO, U. B A

Glen Cove Machine Co., Limited,

PLANING MILL MACHINERY.



No. s.—Fast-feed Planing and Matching Machine. 13 feet 9 inches long. Weighs 8,700 pounds.

Heavy Fast Feed Planing and Matching Machines, Double Surfacers, and Inside Molding Machines a Specialty.

Office and Works, 24 to 30 CLAY ST., BROOKLYN, N. Y.



W. GOCKER, LOCKPORT, N. Y. MANUFACTURER OF

SAWS of All Descriptions.

ilso Inserted Tooth Cross-Cut Circular Saws for Shingle Mills a Specialty. Will do three times the work of any Butting or Drag Saw.

SHINGLE AND HEADING SAWS. AGENT FOR

Orr's and Mixture's Gummers and Swages. Send for Price-List.





WOOD-WORKING

GEORGIA



SEND FOR PRIORS

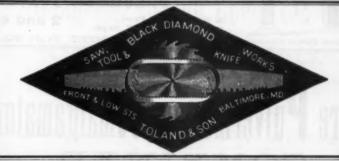
BUFFALO, N.



Chamfering, Howeling and Orosing Machines, Stave Drossers, Stave Jointers, Hoop Drivers, Orosing Machines, Heading Jointers, Heading Drossers, Beer Stave Benders, Stave Outters, Leveling and Trussing Machines, Cylinder Stave Saws, Heading Saws, etc.

— STAVE, BARREL, KEG AND HOGSHEAD MACHINERY.

— See cuts of our WOOD-WORKING MACHINERY is the first issue of each menth.



WALKER MANUFACTURING CO.



Shafting, Hangers, PULLEYS.

PULLEY CASTINGS

GEARING A Specialty. Cleveland, Ohio.

imates furnished. Write for Gear and Price-Lists A.



PULLEYS, HANGERS, COUPLINGS, ETC.

REMINGTON



Clutch

Cleveland, O. HILL Friction Clutch.



Castings of every

W. MARQUETTE, 118 W. Falls Ave., [BALTIMORE, MD,



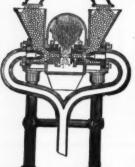
Stedman's Improved Disintegrator and Pulverizer.

This Mill will disintegrate or pulverize materials of all kinds, for brick and tile, for cement and fire brick, and slag from open air furnaces for use in rolling mills, and materials for foundry facings, iron ores, animal matter in almost all conditions,—in fact almost any material that can be disintegrated. It is an improvement over any yet made and the result of practical experience.

Send for Descriptive Circular.

STEDMAN'S

Foundry & Machine Works. AURORA. IND.



PNEUMATIC PULVERIZER.

TWO POWERFUL OPPOSING CURRENTS

of dry super-hested steam, so arranged that they continuously charge themselves with crushed or granulated material, and by the great force and velocity of the steam currents the minerals are dashed against each other with such power of concession as to cause the hardest ores to be pulverized to any degree of fineness desired. The high temperature of the super-hested steam currents employed, through which sever minute particle of or must pass, causes them to become very hot and dry, which produces a beneficial effect upon Suphurets and ores containing restly Gold. The light weight and simplicity of construction of the Pulverizer, the extremely small and inexpensive usering parts are the WONDER and SURPRIBE of all who wissess its operation. The Company are prepared to furnish complete plants for pulverizing.

PNEUMATIC PULVERIZER COMPANY.

L. F. HOLHAN, Prest. P. A. LUCKENBACH, Supt.

2 and 4 Stone Street, New York.

WRITE FOR PARTICULARS



Roller Detachable Chain Bellin

Detachable in every Link **ELEVATORS**, Conveyers,

OPE

N

19

Pat

Hard

Deale

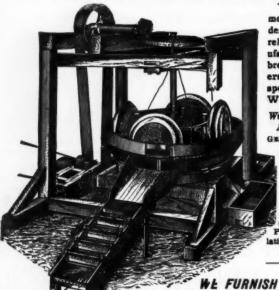
DRIVING BELTS. Coal, Ores, Grain,

CLAY, BRICK, &c.

The JEFFREY MPS. CO. 121 W. STATE ST., Columbus, Ohi

WISWELL

COMBINED.



The following testimonial from Mr. Marsden, of the firm of Farrel & Marsden, manufacturers of stone-breakers & ore-crushers, Ansonia, Conn., Wiswell Mill:

Wissell Electric Mining

Wiscell Electric Mining
Machinery Co.:
GENTLEMEN: After carefully inspecting your
mill and seeing it in
operation, I do not hesitate to say that it is on
of the best, if not the
best pulveriser and most
complete gold saving
machine I, have ever
seen.

B. L. MARSDED

A Complete Mill for \$2,500.

DELIVERED ON BOARD CARS.

For further information address

WISWELL

Electric Mining Machinery Company,

A. A. REEVE, Treas, 4 Post-Office Square, Boston, Mass.

OTTUMWA HOISTING AND HAULING ENGINES

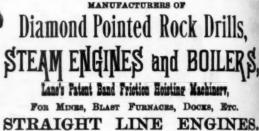
DIAMOND PROSPECTING CO.

22 W. Lake Street, Chicago, Ill.

Eastern Office, IS Broadway, New York.



BULLOCK MFG.



Diamond Pointed Rock Drills, STEAM ENGINES and BOILERS

Lane's Patent Band Priction Hoisting Machinery.

Address,

WORKS:

Jackson St., Pheniz Building. Lake and Tallman Av., CHICAGO, U. S. A.

Winding Engines, Furnace Hoists, Mine Hoists.

Mining Plants," Concentrating Works, and Dredging Machinery Furnished Complete.

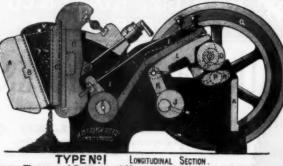
OPELAND & BACON. 85 Liberty Street, New York. 535 Arch Street, Philada.

coss: Croton Magnetic Iron Mines, Brewster's, N. Y. Crown Point Iron Co., Crown Point, N. Y. Belvidere Iron Co., 3s Broadway, N. Y. Sas Island Chemical Co., Bessiert, S. C.



The "Lancaster" rock breaker and ore crusher

The Newest, Most Simple, Rapid, Lightest and Most Effective Crusher Extant.



LONGITUDINAL SECTION

JAS. H. LANCASTER, 187 Broadway, New York,

Sole Maker of the "Lancaster" Hand and Power Coal Wedging and Coal Drilling Machin

Advertise in the MANUFACTURERS' RECORD.

XUM

RILEY GRAY.

Also, WOOLEN AND WORSTED MACHINERY.

OPENERS, LAPPERS, ROLLER AND REVOLVING FLAT CARDS, DRAWING FRAMES (over 17,000 Deliveries, Working with Electric Stop Motion), SLUBBING, ROVING, SPINNING FRAMES AND MULES, WARPERS, SLASHERS, Etc., Etc.

Needle Pointed Tempered Steel READY GROUND

A Great Success. TRY IT!

Lini

ORS,

LTS.

rain,

9. 00.

ST., m, Ohia of the fachines al Dell. alegue.

0

ES.

a Av.,

ER,

vialle id any les of quired ity to less in a subditar, r ma-

prints

D.

åc.

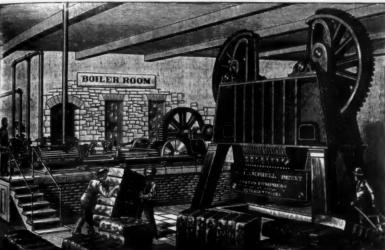
8,

Over 70 New England Mills now using it.

Cuts, Descriptive Circulars, Estimates, Etc., on request.

19 PEARL STREET.

BOSTON, MASS.



J. R. CLARK, Secretary, JOS, SHARP, Tressurer,

+CAMPBELL COTTON COMPRESS.←

Undoubtedly the Most Desirable Compress Made.

It is the cheapest to install, costing only half the price of other makes. It is the cheapest to run, requiring least fuel, attention and recairs. It is the only compress profitable for a small market, as it can be run on small lots at a profit, where other compresses could be operated only at a loss. It is therefore the only compress profitable for the interior, as it will earn a good profit with 30,000 bales or less, while it has a capacity of 40,000 to 56,000 bales per season. It will compress to a density of 25 or more pounds to the cubic foot. It is put up under the fullest guarantee.

Correspondence Solicited. Address

The Campell Cotton Compress Co.

Offices, 59 and 61 Walnut Street,

CINCINNATI, O., U. S. A.

Patent Needle Pointed CARD

Hardened and Tempered Steel Wire

For COTTON and WOOLEN MILLS.

T. K. EARLE MFG. CO. WORCESTER. MASS.

For Raising and Supporting the Guide Board or Ring Frames and Twisters. In Fall River alone it is used on over 400,000 spindles, or of per cent. of all the ring frame spindles in the city. Outside of Fall River its use is scattered from Maine to Delaware, over 400,000 more. Anyone can put them on, being very simple, and its cost nominal.

R. WALMSLEY,

FALL RIVER, MASS.

Patented Jan. 26, 1886.

BROWN & KING, MANUFAGTURERS COTTON MILL SPECIALTIES.

Roller Covering, Loom Pickers and Strapping.

Dulers in Roller Coverers, Stock and Tools; Cotton and Woolen Mill Supplies.

Fall Line "Hick's" United States Standard Ring Travelers, Mill Wire Goods Spring Cotters, Belt Hooks, Lacing, &c., kept constantly on hand.
Wrought Iron Pipe Fittings and Brass Goods. Southern Agents for the celebrated "B. C. & D. Oak Tanned Patent Lap Belting, Galvin Compound Wedge Gate Valve, lahauer's Watchman Time Detectors, Diamond Emery Wheel Machine Co., &c.

Office and Salesroom. No. 62 S. Broad Street. ATLANTA. GA.



LOWELL CARD CO. CARD CLOTHING of Every Description,

Set With Round, Angular, Double-Convex Iron or Steel Wire. LOWELL, MASS.



SCOOP PICKERS

on English and Clipper looms. These pickers will wear longer than any bow picker; the foot is pressed solid without rivets, so it cannot break off in pieces, and the picker is strongest in the bow, where the bow picker is weakest. Samples sent on receipt of a slightly worn picker.

LOOM PICKER CO. - Biddeford, Maine.

OTTON Openers and Lappers.

HOOL ++++ Washers and Dryers. Kitson Machine Co. LOWELL, MASS.

CHARLES F. TAYLOR, Manufacturer of Patent Machine Paper Cop Tubes.

These Tubes are used in a large number of Leading Mills, including
Lonsdale Company, Lonsdale, R. I.
Social Manufacturing Co., Woossocket, R. I.
Manville Company, Manville, R. I.
Harmony Mills, Cohoes, N. Y.
Utica Steam Cottoe Mills, Utica, N. Y.
The New York Mills, New York Mills, N. Y.
Tubes furnished promptly for all makes of spindles, American or foreign. Address
CHARLES F. TAYLOR, 5 Custom House St., Providence, R. I.



JOHN E. RANDLE & CO.

Memphis, Tenn.

Architectural Iron Work Cotton-Seed Oil Machinery,

Ajax & Chickasaw Steam-Power Cotton Presses, ATLAS ENGINES AND BOILERS.

Saw Mills, Corn Mills, Cotton Gins, Pulleys, Shafting, &c. CORRESPONDENCE SOLICITED.

STEAM PUMP DEANE

Steam Power Pumps For all Purposes.

HOLYOKE, MASS.

NEW YORK.

BOSTON.

CHICAGO.

Morton, Reed & Co. AGENTS,

Con. E

BA TH of Tra

pond

Trade

invitat

chants

visit (

excurs organi but wh

year? work.

the Pi

nessed

roads free 1 ought

and o with th

sired ough

ment (

thems

nency

almos

ments

a lea

agents

as to th

in that

favora

puttin in the insura to ma South

come

selves of cap

THE Co. ar

in exte possib

eral s Birmir

doubte coal a

the wo

ing th and th

wealth

gineer

are gi

found

Jones inches

Water Works Engines

A SPECIALTY.

PHILADELPHIA.

ST. LOUIS.

BALTIMORE, MD.

Send for Illustrated Catalogue.

SOUTHERN SELLING AGENTS: THOS. C. BASSHOR & CO., Baltimore, Md. KENTUCKY MACHINERY CO., Louisville, Ky.

W. H. PERRY'S MACHINE WORKS, Nashville, Tenn. LIVERMORE FDRY. & MACH. CO., Memphis, Ten

Boston

Philadelphia

HENRY R. WORTHINGTON NEW YORK.

Chicago

St. Louis

SOUTHERN SELLING AGENTS: SMITH & COURTNEY, Richmond, Va. MECKLENBURG IRON WORKS, Charle

E. V. WHITE & CO., Norfolk, Va. M. SCHWARTZ, New Orleans, L.

San Francisco



Over 18,000 in Tax. Otto Gas Engine

Working Without Boiler, Steam, Coal, Ashes or Attendance.

Started instantly by a Match, it gives full power immediately. When stopped, all expense ceases Guaranteed to Consume 25 to 75 Per Cent. less Gas than any other Gas Engine Doing the same Work.

No explosions, no fires nor cinders, no gauges, no pumps, no engineer or other attendant while running. Becommended by insurance companies
UNSURPASSED IN EVERY RESPECT for hoisting in warehouses, printing, ventilating, running small shops, &c. Sizes: 1 to 25-Horse power

Ington St., Chicago. OTTO GAS ENGINE WORKS, Schleicher, Schumm & Co. 33d & WALRUT STS.

₩E MANUFACTURE

Automatic Sprinklers, Roving Frames, Rabbeth, Sherman, Spindles, Whitin, Sawyer, Spinning Rings, Twisters, Spoolers, Reels, Spooler-Guides, Bobbin-Holders, Banding Machines,

Slasher \ Warpers, Chain Warper { Creels and Beams, Reeds and Combs, Stop Motions & Clocks, Balling Machines, Slasher Cut-Markers, $Separators \left\{ egin{aligned} Doyle, \\ Sharples, \end{aligned}
ight.$

Spinning Frames, Lifting-Rod Cleaners, Traveller Brushes. Temples { Dutcher, } With Latest Hardaker, } Improvements. Shuttle Guards, Durkin's For Spindles, Temples and all

Thick and Thin Place Preventer, Getchell's Improved Thompson Oil Can, Belt Hole Guards.

Lever Screws for Roving and | Milled Machine Screws, Special Milled Work of all kinds, etc., etc.

REPAIRS

our Machinery furnished at short notice.

Send for Prices

HOPEDALE MASS. & SONS.

TELEGRAPH ADDRESS AND RAILROAD STATION, MILFORD, MASS.

Tested Four Years Before Placing on the Market. Superseding the Ratchet. Machinists, Boiler Makers, Mechanics and all parties having use for a Ratchet will find this Drill a great saving of time. be used in contracted places where a Ratchet cannot. Send for Illustrated Circular and Price List. Mention Paper.

F. F. WATERS MANF'G CO. 38 OLIVER STREET, BOSTON, MASS.





Flour Mill, Dredging and Saw Mill Machinery .-

Shafting, Pulleys, Hangers, Couplings, Send for Catalogue,

BECTIONAL AND PLASTIC. PAMPHLET AND HAMPLES FREE. NAME THIS PAPER. Engines and Boiler



1811.

ESTABLISHED BALTIMORE Transact a General Foreign and Domestic Banking Business.

elegraphic Transfers of Money between this and other countries. Make Collec-BROWN BROTHERS & CO., New York, Philadelphia and Be BROWN, SHIPLEY & CO., London and Liverpool.

orcester. Mass.







Iron, Steel and Copper Wire, Wire Rope, Barbed Wire.

lanufacturers' Record.

WANUFACTURERS' RECORD CO.

R. H. EDMONDS, EDITOR.

z Co.

NTS:

otte, N. C.

Orleans, La

ceases.

ompani o powe

T STS.

rk

c., etc.

and all

LROAD

A.

n and

ness.

Bank Bank

S.

shed

-OFFICE. COR EXCHANGE PLACE AND COM-

SUBSCRIPTION \$3.00 A YEAR.

BALTIMORE, MARCH 31, 1888.

THE South Pittsburg (Tenn.) Board of Trade recently decided to corresgond with all Southern Boards of Trade, and propose that next year an invitation be sent to 100 selected merchants and bankers of the East to visit the South; the expense of this ercursion to be borne by all of these organizations. This is a good idea, but why delay carrying it out till next year? Now is the time to do the work. The Louisville & Nashville, the Piedmont Air Line, the East Tennessee, Virginia & Georgia and other roads would, we are confident, furnish free transportation. The invitation ought to be sent to leading bankers and others in the North and West, with the understanding that it was desired that they should make a thorough investigation into the developnent of the places visited, and see for themselves the soundness and permanency of this growth. This would almost certainly result in large investnents in the South. Some time ago a leading insurance company sent agents South to carefully investigate as to the advisability of lending money in that section. The reports were so avorable that that company is now putting out a large amount of money in the South. A prominent Baltimore insurance company is now preparing to make similar investigations. The South must induce capitalists to come down and investigate for themselves, and then there will be no lack of capital offered for investment.

THE Louisville & Nashville Railroad Co. are pursuing a very wise policy in extending their road as rapidly as cossible into the most important mineral sections in Alabama. Their Birmingham Mineral Road will undoubtedly become one of the greatest oal and iron carrying railroads in the world. They are rapidly extending this branch into new territory, and thus opening up new sources of wealth. In the report of Chief Engineer G. D. Fitzhugh on the proposed Huntsville extension analyses tre given of many samples of ore found along the line. One vein in ones Valley, which measures 20 nches thick, shows the following

Metallic		r	ot	1.														65.1450	
Alumina		**					•		•			0			0	•		4.3500	
rauspac	ı	135	١,	*	٠	•	0	•		a			•	×				0.0652	

ADVERTISERS wishing to reach the manuen of all classes, mining companies, steel, iron and hardware dealers of the enlie South, cannot find a better medium than IN MANUFACTURERS' RECORDS

Our National Defenses.

Among the wise exhortations George Washington left as a legacy to the nation was one that our people have seriously neglected. 'In time of peace prepare for war" was the motto which once occupied a conspicuous place in many an armory and drill room, and kept alive before the young men of the land the wise prescience of him who was "first in war, first in peace and first in the hearts of his countrymen." That motto ought to be inscribed in imperishable letters in the legislative chambers of all the States and in the capitol and department buildings at Washington. It should be posted in every school room and place of higher education in our broad land, and its true meaning should be taught to each succeeding generation that the people of this country may all be imbued with that patriotic spirit which animated our revolutionary sires, and value and be prepared to defend at all times the free institutions they founded and transmitted to posterity.

The New York World last Sunday published a two-column letter on this subject, written by Admiral Porter that ought to be read by every American citizen, and its suggestions receive the candid and serious consideration of those who make and those who administer our laws. It presents in forcible language the dangers to which the country is exposed, and deals with grave facts in a calm patriotic spirit that commands the attention of the reader. The admiral opens his discussion by saying that if a man who had amassed wealth failed to take proper precautions for its protection "he would be considered a fool." He would also "be guilty of a crime" by placing temptations before weak and evil-disposed people." The same principle applies also to the State. A country that has amassed great wealth, that has a boundless dominion watered by majestic rivers, dotted with flourishing cities, its harbors filled with a coastwise commerce equalled by no other country in the world, and with thousands of miles of railroads having branches so numerous that the mind can scarcely grasp the situation—such a country failing to prepare a good system of national defence to protect all the interests that its citizens have accumulated in a long series of years is more foolish than the man who leaves his gold and jewels unprotected by bolts and bars.

Such a country is the United States of America. With 60,000,000 of people one would naturally suppose that the wisest of our statesmen would be called to the helm, and that their first efforts would be to devise means to protect all the mighty interests of the nation by an elaborate system of defense in case of an invasion by a foreign foe. But after more than a century's experience the defenses of our coasts and cities are actually weaker in proportion than they were during the last war with Great Britain. Then we were able to keep the British fleets from entering our principal harbors and from en tirely devastating our coasts, and we could retaliate severely upon those who supposed they could take advantage of our apparently unprotected condition.

The United States seems to have pro-

all the nations of the world, was to be exempt from wars, and although her foreign contests have not been of such a nature as to bring widespread devastation on the country, yet it has been shown conclusively that she is not exempt from invasion. For a long period of years it has been the custom of our publicists to 'ry and make it appear that the United States needed neither army nor navy-having no entangling alliances with foreign powers and being so far removed from European politics that we really had no occasion to be anxious on the score of being involved in war with any country. Yet almost in our infancy as a nation we set up the Monroe doctrine as one of the fundamental principles of our institutions, which doctrine we have never had the means nor the resolution to maintain.

Starting with these propositions, Admiral Porter shows that we are impotent as against foreign aggression, and that our unprotected condition invites insult and attack. "With the march of Christian civilization avarice and greed are always in the background as a reserve corps." The great armaments of Europe for offence and defense are because "each of the great powers is waiting her chances to take a part of her neighbor's territory, and, if possible, to erase its name from the list of nations."

This country is not free from danger. On one side are the British possessions with an area of 3,500,000 square miles, and provided on the east coast with arsenals, dry docks and all the appurtenances for carrying on hostilities. The Bermuda Islands, like British sentinels, guard the ocean highway, while Nassau could be transformed into a naval station from which to menace our southern coast; Jamaica holds a strategic position at the entrance of the Caribbean Sea, and the Island of Trinidad blocks its southern entrance against any nation with which England may be at war. The Canadian Pacific Railroad, recently finished, crosses Canada, enabling Great Britain to send troops, munitions and supplies to her depot on Vancouver's Island, from whence she could attack any place on our Pacific coast. On the Lakes we have one little steamer forty years old, and worthless for defense, while Great Britain could at any time send a powerful fleet through the Welland Canal and menace the lake cities from Buffalo to Chicago.

"Anxiety on the subject of national defense may seem premature," says Admiral Porter. "The connecting links of national interest which bind Great Britain and the United States together may endure for a thousand years, and as long as the former, through her great ocean steamers, is able annually to drain this country of \$150,000, oco she will no doubt come forward for our protection in case we are assailed by any other maritime power. The millenium will The lion and the lamb will lie down together, but the lamb will be inside the lion. * * Better by far mistrust the peaceful instincts of any nation. Better by far, now in our days of youth and wealth. inaugurate a system of national defense that will grow with the people and with the reources of the country, so that we can say to the world: 'We welcome you as brothers as long as you respect our rights, but trample upon them and we let loose the dogs of war upon you.' It will require a long time beeded on the principle that she alone, of fore we can possibly put this country even

in a portial state of defense. With twenty years of hard labor, in the present state of our workshops, the United States could hardly be put in a condition to meet thirdclass European power, to say nothing of the first-class. * * We have a wide field before us on which to bestow our energies for the promotion of national defense, and the sooner we set about it the better. When the task is accomplished we can boast that that we are the Christian civilized nation that desires no war, but while holding out a hand in amity to the world, the velvet glove would cover a mailed gauntlet to be thrown down to any nation failing to respect our rights or to honor our flag. Let our motto be: 'Si vis pacem para bellum'."

The MANUFACTURERS' RECORD quoted at some length from Admiral Porter's annual report to the Secretary of War early in the winter, and now calls attention to his later writing because both documents are filled with facts that ought to be known and acted upon at once. This country is at peace with all the world, and we hope it may always be. But "it must need be that offenses come," and incidents have occurred several times during the past few years to show how well other nations realize our impotency to resent insult and to maintain abroad our national dignity and the rights of our citizens. As their enterprise leads them to extend their business and to engage in vast undertakings in other countries the necessity of a large and efficient naval force for their protection will increase. The South is determined to gain a considerable share of the commerce of Central America, and to supply those rich and populous States with the goods they now obtain from Europe. To do this successfully her merchants must have the protection of the American flag backed by a navy strong enough to enforce all righteous demands, otherwise a pretext will be found for interfering with them as soon as they become formidable competitors with European traders. The same rule applies to our intercourse with all foreign peoples. We must if we would protect Americans abroad and be ready to repel all foes from our coasts "inaugurate a system of national defense that will grow with the people and with the resources of the country." We have the money to spare for this purpose. Instead of figuring how to reduce our surplus without reference to the national needs our Congressmen should apply themselves to the task of increasing our maritime importance among the nations, and of providing adequate means for the protection of American citizens in every quarter of the globe.

MANAGERS of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises, and needing machinery or supplies of any kind, will find it profitable to consult the advertising columns of the MANU-FACTURERS' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.

Protection and Impoverished Farmers.

As to the agricultural interests in New York, the second State in the value of agricultural products, we are informed on the authority of the State agents of the Bureau of Statistics, that New York farmers are more in debt than they were ten years ago; that the average depreciation of farming lands is fully one third in ten years; that probably one-third of the farms in the State would not sell for more than the cost of the buildings and other improvements; that thirty per cent of the farms are mortgaged for two-thirds of their estimated value. This State is first in the magnitude of its manufactures and in the advantage, at home and abroad, for agricultural products. It is not unfair to say that agriculture is as prosperous in New York as the average for all the States. It nearly thirty years of protection leaves the farming interest in the condition which this report shows it to be, protection does not benefit agriculture.-Wm. R. Morrison in the March Forum.

Will Mr. Morrison please explain why he so carefully eliminated from the Agricultural Department's report every word showing the good side of the farming interests in New York, and picked out broken sentences here and there to prove his pet theory. The very first sentence of that report says:

"In the best sections of the State the farmers are making money, or holding their money, and are less in debt than ten years ago (italies ours), while in the more unproductive parts, and those more easily affected by drought, there has been a considerable in crease, so that on the whole farmers are more in debt than they were ten years ago, but the average indebtedness is not heavy."

In other words, the best farming part of the State is increasing in wealth, while in the more unproductive parts there has been some decline. This decline, as everybody knows, is due mainly to the agricultural development of the great West and to the low cost at which Western grain could be placed in Eastern markets, thus causing an entire revolution in Eastern farm methods, which naturally has had its effect on wheat and corn growers in the East. But with that revolution the tariff had nothing to do. And then why did Mr. Morrison omit the following sentence; it is plain and very instruc-

"The diversified farm industries in New York have prevented general disaster (italics ours), and not more than 5 per cent. of the farmers are insolvent."

In the revolution that has been going on for some years in Eastern farming, by reason of the opening up of vast wheat and corn areas on the cheap lands of the West, it is "the diverified farm industries that have prevented general disaster." Mr. Morrison dared not to print that sentence in his article, and yet it was impossible for him not to have seen it. It is one of the strongest arguments ever made, though not so intended, in favor of the farmers' interest in protection. It shows what diversified farming, the raising of fruits, vegetables and all market stuff generally for home consumption, has done for New York's farmers. It is just in line with what the Manufacturers' Record has ever claimed. Build up factories all

through the South and you furnish a home market for the products of diversified farming, and this, and this alone, can bring general prosperity to the South's agricultural interests. Every factory started in the South increases the consumplion of such products and adds to the profits of the farmers.

Why did Mr. Morrison change the whole meaning of this report and omit every word (even breaking sentences when necessary) that presented the favorable side of the farming interests? Is that an honest method of argument? Is it worthy of a man who seeks to be a political leader, or is it more like the plea of the demagogue?

In the advertisement of Rome, Ga, which appears in the MANUFAC-TURERS' RECORD, the following remarkable statement, which, we have been assured, is positively true, is made:

"The health of Rome is unsurpassed. The unusually low death rate is a phenomenon, s'anding without a peer, at 8.40 per thousand. Not one case of catarrh or consumption exists or ever originated within her limits."

This is certainly a health record of which any city in the world might be proud. It is not alone, however, of its healthfulness that Rome can boast, for she possesses other advantages on a par with this excellent health record. There are about 12,000 inhabitants in this prosperous and progressive town, and the annual business of the place amounts to about \$12,000,000. Rome is located in one of the finest agricultural sections of America, where grain and grasses, as well as cotton, yield liberal returns. It is the center of a magnificent farming country, and at the same time possesses most excellent advantages for manufactures. A pamphlet issued by the Rome Land Co., which will be sent on application, gives many facts of interest regarding this town.

IT was but a few years ago comparatively when Grand Rapids, Mich., commenced to develop its furniture manufactures, but this industry has grown until that town is annually turning out \$10,000,000 worth of furniture alone, not counting the kindred interests of saw mills, etc., developed by this business. There are now 12,000 people employed in this industry at Grand Rapids against only 600 in 1878. A large part of this furniture is shipped South, and yet the poplar which is largely used in it and the marble tops come from that section. They are shipped to Grand Rapids and then reshipped in the finished state back to the South. The other lumber mainly used is pine and oak, of which the South has almost unlimited quantities. What Southern town will take the lead and become the great center of the South's furniture interests as Grand Rapids is of the West?

Subscribe to the Manufacturers' Record

OUR ALABAMA LETTER.

Birmingham's Bright Prospects— Anniston's Steel Making and Car Works.

(Special correspondence Manufacturers' Record.)
Anniston, Ala., March 26, 1888.

That tireless genius, Dr. Caldwell, president of the Elvton Land Co., of Birmingham, is taking on renewed energy, and a number of 'big things" for the "Magic City" is confidently expected within the near future. He is a man quick to perceive the fruitfulness of an opportunity presented, leading to beneficial results for his native city, and within every muscle of his stalwart frame thrills an impetuous energy which seizes that opportunity and wrenches from it the benefits it is capable of bestowing. With that keen perception which has characterized his every stroke of policy, he readily realized the magnitude of the splendid advertise ment the success of Mr. Henderson's process would be to Birmingham, and he knew that it was a time in the tide of that city's affairs, which, if taken at its flood, would lead on to a season of renewed energy, activity and ultimate fortune. Hardly before the news of the successful consummation of the steel-making experiments had flown over the wires to every paper in the land, he had begun the nego tiations for the purchase and the transfer to Birmingham of the Nashville Rolling Mills, reported in my last letter.

Immediately in the wake of this enterprise Dr. Caldwell secures the location in Birmingham of another industrial plant of considerable importance. The Binghamton Hoe & Tool Co., of Binghamton, N. Y., is to be moved to Birmingham and reorganized under the name of the Birmingham Hardware Manufacturing Co. The capital stock has been placed at \$100,-000, of which the Elyton Land Co. has agreed to take \$40,000, the New York company \$40,000, and the citizens of Birmingham will take the remaining \$20,000 of the stock. The plant at Binghamton will be moved to Birmingham and consolidated with the pin and tack factory of the latter city. To digress a moment, here is an illustration of the force of the statement made in my last letter that small manufacturing enterprises "form the nucleus around which larger industrial plants eventually flourish." The pin and tack concern of Birmingham is transmagnified into a colossal establishment, which in turn will attract to the Magic City many other large and smaller enterprises. New and capacious buildings are to be erected and the works will give employment to 200 operatives, all skilled artisans in their respective departments. The consolidated plant will manufacture hoes, shovels, picks, rakes and agricultural implements generally. The handles for the various tools will also be manufactured, and to this end wood-working machinery will be purchased. The capacity of the pin add tack factory will be increased to fifty kegs per The erection of the buildings and the transportation of the machinery will begin at once, and it is stated that the plant will be in full operation by the first of August.

Dr. Caldwell is in negotiation for several other important industrial enterprises. During the past week a party of gentlemen from Rhode Island visited Birmingham with the view to locating there extensive manufactories.

The moral of these recent developments in Birmingham is simply this: When you honestly believe you have a good thing, lose no time in letting the world know of it. The making of steel in Birmingham was too good an advertisement to be indifferent about, and such progressive spirits as Dr. Caidwell, the Age, the Herald and

the Chronicle biazoned the fact before the world in the most vociferous language attracting the interest of manufacturen elsewhere who employ steel in the making of their goods.

THR

An

of the

ber of

part of

period

twenty

ing mi

then th

period

the tin

these :

under

any sp

iron c

into of

then th

now th

investe

naces l

renewe

naces.

In t

South

diversi

nmbe

most c

ment.

suppor

enlargi

facture

The in

in the

has, as

TURER

this, th

ever be

mills, t

wheat :

articles

creasin

ing cor

reporte

1888:

Iron f
Mach
Agric
Flour
Cotto
Furni
Gas w
Water
Carrii
Electr
Miamb
sasl
Ice fa
Canni
Stove
Brick
Misce
Cotto
Cotto
Cotto

Thes

923 for

152,]

was a l

foundri

creased

In flour

0m 1

ments (

Months before steel making had bee an established reality in Birmingham steel of a high grade of tensile streng and durability was made in Anniston, as is being made every day, and, although the first output of the steel bloomary broke the dawn of a new era in Anniston's indus trial life, she allowed the event to con with but little heralding or blowing The feat of making the first sta in Alabama out of Alabama ore, a abundant cause for unlimited rejoicing was accomplished and many of Anniaton own citizens knew nothing of the occur rence until days after, and the great in world beyond does not yet even fully und stand that this is an accomplished fact.

The public test promised by the Headerson Steel Company, and alluded to h my letter of last week, took place in Remingham Friday. The test was made a the solicitation of the Chamber of Conmerce, and a committee from that body supervised the experiment, taking notes the condition of the pig iron, the fuel as every other element used. A succ run of one and a-half tons of steel wa made, and the output is said to have been of a harder quality than any produced former tests Specimens of the steel an to be sent by the Chamber of Com to Mr. Rothwell, a Philadelphia chemi who is considered an expert in a analysis.

Anniston, already the hub of four niroads reaching out into six different diretions, is to have another thoroughin shortly. The surveying of the East Abbama & Cincinnati Railroad from Wedows to Anniston lacks only fifteen miles of being completed. This promises to be valuable feeder for the Model City.

Work began Monday last on the new foundry building of the United States Roll ing Stock Co's car works, and the struc ture is now well under way. The puri and interior of the works present an usually busy sight. Much new machine is being received and placed in position and the number of employes is being Walking through the steadily increased works yesterday with a prominent disse of Anniston, he paused and said: "For of our citizens realize the present size an scope of this establishment, and fewer si are prepared to conceive the magnitude of the plant after the work of enlargement has been consummated." These work cover an area of over thirty acres, and con sist of many huge plants all in one

The buildings of the Barbour Machine Co. are nearing completion, and the machinery is being received. Fifteen cars are required to transport the plant from Estaula to this city. Mr. Petrey, the manager, says that the works will be in operation within a couple of weeks.

EDWARD A. OLDHAN.

The MANUFACTURERS' RECORD solicits correspondence relating to the manufacturing, mining, lumberia and all other material interests of the Southern States. Letters on any phase of Southern development, facts as to the resources of this section. notes of new enterprises to be started etc., etc., will all find a welcom Reaching so many capitalists in all parts of the United States seeking profitable investment in the South, the MANUFACTURERS' RECORD offers excellent chance for the people is that section to place the advantage of each locality before those like to be interested.

XUM

THREE MONTHS' PROGRESS.

An Increasing Number of Small and Diversified Enterprises.

ad become singham a strength siston, and shough the broke the

m's indu-t to occur blowing, irst stat

ore, m

rejoicing. Anniaton's

the occur

great irm

ed fact.

the Headed to in

ce in Bir-

made at r of Com-that body

ng notes of

e fuel and

steel was

have been oduced in steel are

Commen

a chemis, in stel

f four mi-ereat dire-oroughfar

East Ab-

Wedows miles of ses to bes

n the new States Rol-

the struc-

The yard

ent an m-machinery

position, is being

arough the ent citizen id: "Few

nt size sai

fewer still gnitude of largemen ese works s, and con r Machine en cari u from Itthe ma-

LDHAN.

RECORD

ing to the umbering

terests of

rs on any ent, facts

s section, e started

welcome.

sts in all s seeking

South, the

ty.

The gigantic developments in the iron interests of the South brought into existence a large number of great furnace enterprises during the early part of 1887, which was the formative or creative period, during which the building of between twenty and thirty immense furnaces, besides rolling mills, pipe works, etc., was commenced. Since then this industry has been passing through the period of construction, and will soon enter upon the time of active production of iron. While these furnaces and kindred iron enterprises are under construction, we cannot, of course, look for any special activity in the organization of new iron companies. Most of these furnaces will get into operation during the second half of 1888, and then they will begin the creation of wealth, whereas now they are simply locking up the capital invested in building them. When these furaces have got well under way and have adjusted themselves to the markets, then we may look for renewed activity in the building of additional fur-

In the meantime the industrial growth of the South moves forward with an ever increasing diversity of enterprises, and a steady gain in the number of small factories. This is one of the most cheering signs of the present era of development. The South is yearly becoming more selfsupporting, while at the same time it is constantly enlarging its production of agricultural and manuactured staples for shipment to other sections. The increase of late years in the grain crops and in the number and value of live stock in the South has, as shown in the last issue of the MANUFAC-TURERS' RECORD, been remarkable, and now to this, that section is beginning more largely than ever before to manufacture its cotton in its own mills, to can its fruits and vegetables, to grind its wheat and corn and to make at home hundreds of articles heretofore purchased elsewhere. This increasing diversity is aptly illustrated in the following comparison of the number of new enterprises reported during the first 3 months of 1887 and

Pi-		months o
	1888.	1887.
Inu furnace companies	3	17
Machine shops and foundries	36	31
Agricultural implement factories	4	30
Plear mills	35	30
Cotton mills	38	25
Furniture factories	16	15
Gas works	IO	15
Water works	26	15
Carriage and wagon factories	27	18
Electric light companies	49	17
Mining and quarrying enterprises	139	143
Lumber mills, including saw and planing mills,		
sash and door factories, stave factories, &c	253	x8q
les factories	17	35
Canning factories	103	21
Stove foundries	2	2
Brick works	38	43
Miscellaneous iron wks., roll'g mills pipe wks., &c.		19
Cotton compresses	7	. 0
Contou-seed oil mills	6	4
Miscellaneous enterprises not included in fore-		
, going	377	287
		_
Total	000	845

These figures show a total of 1,075 new enterprises for the first three months of 1888 against 93 for the same time last year-an increase of 152. In furnace companies, as already said, there was a large decrease, but in machine shops and foundries there was an increase. Cotton mills increased from 15, projected during the first three months of 1887, to 32 for the same time this year. In flour mills there was a gain from 30 to 35, in water works 15 to 26, in carriage and wagon factories from 12 to 27, in electric light companies offers an people in ivaniages ose likely from 17 to 42, and in wood-working establish neals from 189 to 253, while the most remarkable During 1887 there was a decided advance in the g industry in the South, and since then there

has been a remarkable interest in this business many new factories being under construction in all the Southern States, though Maryland, Virginia, Texas and Arkansas are leading. This is destined to become an industry of great magnitude, and to prove not only a source of wealth to the canners, but a blessing to the farmers and fruit growers who find in these factories a profitable demand for their fruits and vegetables.

The outlook for the manufacturing interests of the South was never more promising, and this is made especially noticeable by reason of the attention that is now being given to small diversified industries, which must be at the foundation of permanent prosperity. These enterprises do not swell the aggregate investments of capital so rapidly as great furnace and coal companies, but they add vastly to the South's prosperity, and supplement the work of the furnaces and the coal mines in enriching the whole South.

Basing our calculations upon returns received directly by the MANUFACTURERS' RECORD, amply authenticated and verified, and in the case of incorporated companies, compared with the official reports of the State officers, we find that during the first three months of 1888 the amount of capital, including capital stock of incorporated companies, represented by the new manufacturing and mining enterprises organized or chartered at the South, aggregates about \$38,668,000. It is of course true that with many of these companies the actual cash investment is not so large as the amount of their capital stock; but there are many small manufacturing enterprises, portable saw mills, small grist mills, ginneries and similar small industries, costing from a few hundred to a thousand dollars, that are not included in this list. The aggregate cost of these yould be .very considerable and partly, though not wholly, offset the too great capitalization of some incorporated companies. In addition to these, every manufacturing enterprise is constantly adding here and there a new piece of machinery, which in the aggregate is very great; but we take no account of that, only including cases where a mill is greatly enlarged, remodeled, or other extensive improvements made.

Summing up the amount of capital and capital stock represented by our list of new enterprises and the enlargement of old plants for the first three months of 1888, we have:

First	three months of
Alabama	1888.
Arkansas	
Florida	1,313,000
Georgia	
Kentucky	
Louisiana	1,833,000
Maryland	2,069,000
Mississippi	401,000
North Carolina	3,006,000
South Carolina	1,844,000
Tennessee	3,519,000
Texas	6,484,000
Virginia	8,990,000
West Virginia	1,477,000
Total	4-0 660

In the following list we give the name, location and character of business of the new enterprises organized during the first three months of 1888, and existing establishments rebuilt (after being burned) or enlarged:

LOCATION.	NAME.	BUSINES.
Anniston, S'th Bro Anniston { Uni S Auniston E., Anniston An	E. Herrod	Planing Mill. **Transport of the control of the co
Anniston E. Anniston Mu Anniston Ann	R. Jacob & Co	Spoke & Handle FactoryMachine ShopEnlarge FoundryAdd. Water Works Mach.
Anniston	H. Davis	Car Spring Factory. Saw Mill. Brick Works. Gas Works.
Autaugaville Jan Avondale Avo Avondale Elie Avondale Avo	nes Nunn & A. M. Sn ondale Iron Works en Ross Iron Works ondale Ice Co	Harness & Saddlery. aith, Water Works Enlarged Works Enlarge Works Enlarge Factory, Quarrying.

LOCATION.	NAME.	Business.
Bessemer	Sheffield & Bus. Min. Co Bessomer Ice Mfg. Co	Mining & Coke Making. .Ice Factory
Bessemer		Screw Factory.
Ressemer	Lacpard & Chadbourne Bessemer Cotton Mig. Co Matthew Bros. & Wigfall Davis & Worcester	Vinegar Factory. Cotton Mill. Wagon & Carriage Fact'y.
Besemer	. Davis & Worcester	Wagon & Carriage Fact'y. Mineral Water Factory. Mining, &c.
Bessemer Bessemer	.Magnetic Ore Co	Machine Shop & Foundry, Planing Mill.
Birmingham Birmingham	.Caldwell Printing Co	Printing &c. Rolling Mill. Double Grist Mill.
Birmingham Birmingham	. Elyton Land Co	Double Grist Mill. Teol Works, &c.
Birmingham	Bir. Tool & Implement Co. Columbus & Western Rail-	Machine Shops.
Birmingham	way Co	Smoke Consumers.
Birmingham	Sloss Iron & Steel Co	Remodel Furnace.
Birmingham,n Birmingham Birmingham	. Bir. Bridge & Bolt Works	Foundry. Enlarge Works. Enlarge Plant.
Dirmingham	. Kansas City Coal & Coke Co	Mining, &c.
Birmingham, no Birmingham Birmingham	Bir. Bridge & Bolt Works Bir. Gas & Electric Lt. Ca Kansas City Coal & Coke Co. Owen T. Holmes and others Alabama Rolling Mill Co Obear Jeweiry Co	Coal Mining. Increase Capital. Jewelry, &c.
Birmingnam	. Birmingham Ios Factory	Enlarge Ice Factory.
Birmingham Birmingham	. Pioneer Pottery Works Alabama Iron Works	Pottery Works,
Birmingham	John Douglas	Engines. Planing Mill. Horse Shoe Works.
Birmingham Birmingham		. Horse Shoe Works, . Printing, &c.
Birmingham Birmingham	Winkly Printing Co. Elyton Land Co. S. C. Johnsten Chas. C. Kramer Chas. C. Kramer G. H. McCumber Seaboard Mfg. Co. Farris & Guan	Printing, &c. †Wire Nail Factory. Wood-Working Factory. Broom & Brush Factory.
Birmingham Birmingham	.Chas. C. Kramer	Broom & Brush Factory. Double Works. Saw Mill.
Calvert	G. H. McCumber Seaboard Mfg. Co	.Saw Mill. .†Saw Mill. .Saw Mill.
Camp Hill	. Farris & Gunn	.Saw Mill. .Shingle Mill.
Childersburg Citronelle	Farris & Guan Clark Richey W.W. Lambert & Blackbury D. Devol	Shingle Mill. Saw Mill. Saw Mill & Box Factory.
Clayton	.S. A. Blasingame	. Saw Mill. Fertiliser Factory.
Collinsville	Collinsville Min. & Manu	Ore Mining.
Coosada Sta'n.	W. H. Zaugler and others	.Saw Mill. .Saw Mill.
Courtland Cross Plains Cullman	Harris Weolum & Son J. H. Moore, President Schmidt Bras	. Washing Machines. . Brick Works.
Cullman Dadeville	Schmidt Bros	Coal Mining.
Dadeville Decatur	.E. White	Gold Mining.
Decatur	Schmidt Bres	Enlarge Ice Facsery.
Decatur		Plumbing Works.
Decatur	Fitting Co	******* ** ******
Decatur	Brick & Tile Co	Brick & Tile Works.
Decatur	Ala. Lum, & Fruit Pack. Co	Boxes, Baskets, &c.
Decatur	Mouthrop & Stevens Brick & Tile Co. Decatur Build & Supply Co. Ala. Lum. & Fruit Pack. Co. The Evans Furn. Mg. Co. J. M. Pearson Boot & Shoel Mg. Co. Decatur Wood Working Co. W. O. Temple & Griffin	Boot & Shoe Factory.
Decatur	Decatur Wood Working Co	Sash & Door Factory.
Evergreen	Decatur Wood Working Co. W. O. Temple & Griffin E. B. Herton Conecula Mfc Co. J. Seymour & Sons Louis Seigman & Co. Reynolds Saw Mill Co. Francis Peacock Co. Florence Stove Mfg. Co. Jelason & Gordon	Saw Mill.
Fayette C. H	.J. Seymour & Sons	.Saw Mill.
Florence	Reynolds Saw Mill Co	. Brewery. .Saw Mill.
Florence	Francis Peacock Co Florence Stove Mfg. Co	Stove Works.
Gadsden	Johason & Gordon. Johason & Gordon. Felix Leonard Christopher Lumber Co E. T. Hollingsworth Elliott Car Works Gate City Land Co. F. M. Rhodes.	. Planing Mill. . Grist Mill.
Gadsden	E. T. Hollingsworth	.Saw Mill. .En. Electric Light Plant.
Gadsden	Elliott Car Works	.†Foundry. .Water Works.
Constitution	.F. M. Rhodes	
Goodwater	Girard Knitting Factory R. W. Lee & Co G. W. Wilcam & Co	Double Factory. Quarrying. Saw Mill.
Gravella	OTTOWN WELL COMMENT OF	Saw Mill. Furniture Factory.
Guntersville	Wyeth City Land & Im-	Canning Factory.
Guntersville	Wyeth City Land & Improvement Co Wyeth City Land & Improvement Co	Paper Mill.
Hull	Tuskaloosa Lumber Co	
Huntsville	Tuskaloosa Lumber Co E. B. Carter & Co D. E. Evans. Fossick Quarrying, Minling & Mfg. Co Bir. Mining & Mfg. Co	. Mattress Factory. . Brick Yard.
Ingleton	Fossick Quarrying, Min-	Quarrying, &c.
Irondale Jacksonville	. Bir. Mining & Mfg. Co	.†Lime Works. .Sash & Door Factory.
Tasper, near	. Joseph Moncrief	†Lime Works. Sash & Door Factory. Coal Mining. Sash & Door Factory. Brick Works. Enlarge Works. Saw Mill.
Leads	.W. H. Stanley	. Brick Works. . Enlarge Works.
Leads	.F. M. Nelms	.Saw Mill, .Brewery & Ice Factory.
Lively Mobile Mobile	Mobile Artificial Stone Co.	. Packing. . Artificial Stone Factory.
Mobile	Mobile Coal Co	Wood-Cutting Mill, Clothing Factory.
Montgomery	.Adams Cotton Factory Reynolds	Enlarge Mill
Montgomery Mountain Mills	. Reynolds	Spoke Factory. New Foundry. Add Cotton Machinery.
Muscadine	H. M. Martenn	Shingle Mill. Fire-Brick Works. Paint Works.
Notasulga Oak Level	. Montgomey Iron Works . W. H. Cherry & Co . H. M. Marten . H. M. Martin . W. D. & J. Barrow . K. M. Pitchford . John Bros . C. J. Sudduth . J. P. Rurnett	. Paint Works
Opelika	. John Bros	New Mach. Shop & F'dry. Brick Yard.
Opelika	.J. P. Burnett	Wood-Working Factory.
Ozark. near	W. D. & J. Barrow K. M. Pitchford. John Bros C. J. Sudduth J. P. Burnett Z. Hellman B. G. Brown C. M. Halley & Ce A. G. Parker & Co. Gray & Keyser	Brick Yard. Saw Mill.
Patsburg		
River Bend	. Harvey Bres	Quarrying & Marble Mill.
Riverside	. Riverside Lumber Co	Planing Mill.
Riverside Seale	Riverside Lumber Co	Spoke & Wheel Factory.
Sheffield, near. Smith Mines	Lewis Hyde	Ore Mining.
Stockton Stout's Mt	Stockton Lumber Co Elias Kelton	Ore Mining. Saw and Planing Mill. Saw Mill.
Sylacauga	Lewis & Co	Alone Ore Mining!
Sylacagua Taliadega	May Virginia Gold Mining	Mining.
Talladega	May Virginia Gold Mining & Milling Co	.Wire Goods Factory.
Thompson	Dallas Patterson and others	Stave Factory.
Troy Troy Tuskalossa	. Pike County Guano Co	. Enlarge Factory.
Tuskaloosa	.Tuskaloosa Mfg. Co	Add. Cotton Mill Mach'y.
Tuskaloosa	Dallas Patterson and other Gellersteit Bres . Pike County Guano Co . W. & Keefer . Tuskaloosa Mfg. Co . W. T. Smith . Teople & Brooks . Geo. F. Dullin & Denier . Warrior Printing Co Watts Coal & Irwa Co Wilson Lumber Co	Saw Mill.
Tuskaloeea Warrier Stat'n.	. Warrior Printing Co	Printing, &c.
Warrior Stat'n. Wilson	. Wilson Lumber Co	Lumbering.

14	MAI		CTURE	
	ARKANSAS.	LOCATION.	NAME. S. B. Downing. J. Regand. Albany Fer. & Farm Imp. (Wells & Geise. City. Wells & Geise. City. McCosh. McCosh. McCosh. McCosh. McCosh. McCosh. McCosh. Coorgia Mfg. Co. Princeton Factory. Edge. Dorsey & Co. Princeton Factory. Edge. Dorsey & Co. Davis Hodges. Zachry Bros. & Co. Georgia Lumber Co. Refingerating Cons. Co. Athanta Auto. Refrig. Co. Logans Broom Co. Logans Broom Co. Exposition Cotton Mills. Southern Spring Bed Co. Ga. Pertable Water Gas Cd. John W. Rollo. H. H. Clausen. Augusta Brick Co. Stope Health-Protecting Fortilizer Co. S. G. Culpapper. F. M. Nelens. C. J. Juhan. Robinett & Beavers Floneer Compress Co. C. Watts. R. L. Gaines. G. F. Neigole J. T. Roberts. Mager. J. P. Miller. Central Mining Co. Sartow Pulverizing Co. Cartersville Furnace C	Возиная.
LOCATION.	NAME. BUSINESS.	Alaculsy	S R Downing	Mining.
Argenta	Alexander Water Works Co. Water Works. J. J. Bourke	Albany	J. Regand	Moulding Factory.
Ashton	J. J. Bourke	Albany	Albany Fer. & Farm Imp. (Wells & Geise	Co. Fertilizer Factory.
Arkansas	Arkadeiphia Cotton Mills. Cotton Mill. Kansas & Texas Coal Co. Increased Capital. Union Lumber Co. Saw & Planing Mill. Batesville Water Co Water Works. Waitz Process & Reduc. Co. Reduction Works. Heller & Barnes. Marl Mining & Mfg. Saline County Min. Asso. Nickle and Silver Mini	Americus	American Contract Co	Water Works.
Arkansas City Batesville	Union Lumber CoSaw & Planing Mill. Batesville Water CoWater Works.	Americus	Americus Ice Co	Double Ice Factory.
Bear	. Waitz Process & Reduc. Co. Reduction Works.	Antioch	McCosh	Grist Mill. Additional Cotton Mill.
Benton	Saline County Min. Asso Nickle and Silver Mini	Athens	Princeton Factory	Improve Cotton Mill.
Bentonville	Dixie Stoneware CoStoneware. Bentonville Evap. & Can Co. Canning Factory.	Athens	Pioneer Paper Mill Co	Improved Mill.
Boonsboro	Cane Hill Can. & Evap. Co., Canning Factory.	Athens, near .	Zachry Bros. & Co	Chair Factory. Flour Mill.
Buford, near	Saline County Min. Asso Nickle and Silver Mini. Dixle Stoneware Co Stoneware. Bentonville Evap. & Can. Co. Canning Factory. Cane Hill Can. & Evap. Co. Canning Factory. Geo. Shoecraft Brick Yard. A. C. Cornell Enlarge Mill. Rouse, Morton & Raymond. Saw & Grist Mill. Conder, Water Worke.	Atlanta	Georgia Lumber Co	Lumber Mill.
Buford	Rouse, Morton & Raymond.Saw & Grist Mill. Camden Water Works Water Works.	Atlanta	Atlanta Auto, Refrig. Co.	Cold Storage, &c.
Clarksville	Camden Water Works Water Works. Clarksville Canning CoCanning Factory.	Atlanta	Logan Broom Co Bell's Pure Soap Co	†Match Factory.
Coal Hill	Quita Coal Co	Atlanta	Piedmont Mfg. Co	Match Factory.
Eureka Spring	s. J. S. Rawlins	Atlanta	Exposition Cotton Mills	Will Double.
Fayetteville	Fayetteville Electric Light Electric Light Works.	Atlanta	Southern Spring Bed Co Ga. Portable Water Gas C	Saw Mill.
Forrest City	Forrest City Brick Co Brick Works.	Atlanta, W. Es	d. John W. Rollo	Brick Yard.
Fort Smith	Ft. Smith El. Lt. & Pow. Co. Enlarged Plant.	Augusta	Augusta Brick Co	Brick Works.
Fort Smith	Fort Smith Cos Co. Double Ice Factory.	Augusta	Close Health - Protecting	Add Cotton Machinery
Fort Smith	Fort Smith Canning Co Increase Capital.	Roston .	Fertilizer Co	Humber Mill
Fort Smith	Northwest'n Parlor Suit Co. Furniture Factory.	Branchville	F. M. Nelens	Saw Mill.
Fort Smith	Fort Smith Soap & Chemi- Soap Works, &c.	Brick Mills	C. J. Juhan	Iron Ore Mining.
Fort Smith	.Times Printing Co Printing.	Brunswick	Pioneer Compress Co	Cotton Compress.
Goldman	Highland Land & Timb. Co.Shingle Mill.	Canton	R. L. Gaines	Planing Mill.
Helena	Helena Compress Co. Cotton Compress	Canton	J. T. Roberts	Mining.
Helena	Helena Electric Light & Electric Light Works.	Carrollton	Mager	Saw Mill.
Hico	. Hico Can'g & Evap. Co Canning Factory.	Cartersville	Central Mining Co	Ore Mining.
Hot Springs	. Hope Lumber Co Sash & Door Factory,	Cartersville	Cartersville Furnace Co	Furnace.
Hot Springs, ar	Rouse, Morton & Raymond Saw & Grist Mill. Camden Water Works. Clarksville Canning Co. Canning Factory. Wm. R. Felker. Coal Mining. Ouita Coal Co. J. Coal Mining. J. P. Cunningham & Co. Hub & Spoke Factory. Fayetteville Electric Light & Power Co. Forest City Brick Co. Fr. Smith El. Lt. & Pow. Co. Enlarged Plant. Wm. Siegrist. Wagon Factory. Fort Smith Le. & Coal Co. Double Ice Factory. Fort Smith Gas Co. Fort Smith Gas Co. Fort Smith Canning Co. Increase Capital. F. G. Triesch & Bro. Cigar Factory. Northwest'n Parlor Suit Co. Furniture Factory. Fort Smith Soap & Chemical Works. Times Printing Co. Highland Land & Timb. Co. Shingle Mill. Planters' Compress & Stor- age Co. Helena Compress Co. Helena Compress Co. Helena Electric Light & Electric Light Works. Power Co. Helena Electric Light & Electric Light Works. Power Co. Helena Gompress Co. Cotton Compress. Hope Lumber Co. Sash & Door Factory. Sithen & Dow. Sash & Door Factory. Saw Mill. Jonestown Min. Association. Reduction Works. E. A. Shippey and others. Saw Mill. Jonestown Min. Association. Reduction Works. E. A. Shippey and others. Saw Mill. Bryce & O'Kelly. Foundry. Wiegel & Wilson. J. Guarrying. Geo. Stringer. Saw Factory. Curtis. Broom Factory. Muskegon Lumber Co. Lumber Mills, &c. Citirens' Electric Light Co. Electric Light Plant. J. Harbie. C. J. Lincoln. Patent Medicines. Cuttis. Broom Factory. Muskegon Lumber Co. Canning Machinery. Hope Lumber Mills, &c. Citirens' Electric Light Co. Electric Light Plant. J. J. & H. Raibbie. Candy Factory. Saw Mill. Saw Mill. Jonestown Min. Spring Imp. & Water Power Co. Mining. Mammoth Spring Imp. & Harting Machinery. Hope Lumber Co. Saw Mill. Jonestown Min. Saw Mill. Jonestown Min. J. J. & H. Raibbie. Candy Factory. Mining. Mammoth Spring Imp. & Harting Mining. Mammoth Spring Imp. & Harting Mining. Mammoth Spring Imp. & Harting Machinery. Hope Mining Co. Mining. Mills River Mining Co. Mining. Mammoth Spring Imp. & Harting Mills	Cartersville	Georgia Graphite Co	Mining, &c.
Hot Springs, nr	E. A. Shippey and others Smelting Plant.	Cartersville	Ga. Fire Brick & Kaolin C	Co. Fire-Brick China, &c.
Hot Springs	Arkansas Min. & Smelt. Co. Smelting Plant.	Cedartown	Bigelow and others. Clay Bros r.S. Da.her Soque Woolen Mills J. B. Jenes Cotumbus Water Works C. North Georgia Land Co. E. Heller C. C. Shepperson Columbus Fertilizer Co r. Ernest Koennecker. S. A Pearce.	Brick Yard.
Hot Springs	. Hot Springs Water Wks. Co. Enlarge Plant.	Clarks' Mill, n	r.S. Dasher	Saw Mill.
Lewisville Little Rock	.B. P. Haynes Saw Mill. Bryce & O'KellyFoundry.	Clarksville	J. B. Jenes	. Shoe Factory.
Little Rock	. Wiegel & Wilson †Quarrying.	Columbus	North Georgia Land Co	Mining &c.
Little Rock	.Curtis Broom Factory.	Columbus	C. C. Shepperron	Candy Factory.
Little Rock	. Muskegon Lumber Co Lumber Mills, &c Citizens' Electric Light Co Electric Light Plant.	Columbus	Columbus Fertilizer Co	Cotton-Seed Oil Mill.
Little Rock	.C. J. Lincoln Patent Medicines.	Convers	S. A. Pearce	. Ouarrying.
Little Rock	.R. S. Miller & CoArtificial Stone Factory	Conyers	Geo. W. Collins	Quarrying.
Little Rock	.E. C. Weherfritz Enlarge Machine Works .I. I. & H. Raibbie	Creswell	.J. T. Moore	Saw Mill.
Little Rock	Abe Stiewell †Coal Mining.	Dahlonega	Hand & Bailow Mining Co	†Stamp Mill. †Stamp Mill.
Spring	Water Power Co Increase Capital.	Dahlonega	W. H. McAfee	Ore Mining.
Marianna Marion	.L'Anguille Lumber CoSaw Mill.	Dalton	Manley Mfg. Co	Iron Works.
Mountain View	White River Mining Co Mining.	Dalton	W. C. Quillian	Broom Factory. Machine Shop.
Newport	.Wm. B. Empie & Co Saw Mill.	Dawsonville	Beard & Rickman	Printing Establishment.
Ozark Paragould	N. C. ShepardShingle Mill.	Douglasville .	Douglasville Can. & Pre-	Canning Factory
Paragould	J. F. BrinkhamStave Factory.	Dublin	Carter Bros	Engine & Bo ler Shop.
Pine Bluff	L'Anguille Lumber Co Saw Mill. Ginnery. White River Mining Co Mining. Drew County Canning Co Canning Factory. Wm. B. Empie & Co Saw Mill. Ozark Canning Co Canning Factory. N. C. Shepard Shingle Mill. J. F. Brinkham Stave Factory. O. D. Peck Lumber Co †Saw Mill. Standard Compress & Cotton Compress. Silver Leaf Mining & Smelting Co Silver Mining Co & Silver Mining Co TSmelter. **The Control Continental Gold & Silver Mining Co TSmelter.	Fannin County	Columbus Fertilizer Co. Ernest Koennecker. S. A. Pearce. Gro. W. Collins Baldwin & Early. J. T. Moore. Hand & Barlow Mining Co. Adams Mining Co. W. H. McAfee. A. G. Wimpy. Manley Mfg. Co. W. C. Ouillian. Finley & Field. Beard & Rickman. De Kalb Wagon Co. (Douglasville Can. & Preserving Co. Carter Bros. Watts, Sherwood & Ware. John C. Printup D. F. Bennett L. H. Traylor & Co. Gainesville Light Co. Gainesville Light Co. Gainesville Light Co.	Mining.
D-II- C	Silver Leaf Mining & Lagran	Forsyth	.D. F. Bennett	Corn Mill.
Polk County	Smelting Co Mining.	Gabbettsville	C. H. Traylor & Co	. Grist Mill. . Furniture Factory.
Polk County	& Silver Mining Co Smelter.	Gainesville	Gainesville Light Co	Gas or Electric Light WI
Prairie Grove	& Silver Mining Co Prairie Grove Canning & Canning Factory. T. M. Neal	Griffin	Andrew Taylor. Kincaid Mfg. Co. Andrew Bates. F. B. Hodges. La Belle Mining Co.	Quarrying.
Prescott	T. M. Neal Flour Mill.	Griffin	Andrew Bates	Canning Factory.
Rogers	Rogers Lime & Water Wks., Water & Lime Works.	Hartwell	.F. B. Hodges	Grist Mill.
Kussellville		Holly Springs .	. John T. Roberts	.Saw Mill.
	FLORIDA.	Holton	John T. Roberts R. A. Evans Carling, Brown & Co T. H. Hardin	Quarrying.
palachicola	Ruge Bros. Packing Co Canning Factory.	Honey Creek.	T. H. Hardin	Saw Mill.
Apalachicola	Robert Morgan	Jones Mills	Haynes Milam. T. J. Hardage & Co J. G. Truitt and others. La Grange Iron Works Teal & Adams Mining Co.	Saw Mill.
popka	A. D. StarbirdSaw Mill.	La Grange	.J. G. Truitt and others	Cotton Mill.
rcadia	Warren & WilliamsCigar Factory.	La Grange	La Grange Iron Works .Teal & Adams Mining Co.	Iron Foundry.
Bradfordville	C. C. Priest	Lumber City	I Ringwanger & C	Barrel Factory.
Bronson	Strickland & Meredith Saw Mill.	Macon	. J. Binswanger & Co Macon Furniture Co	. Furnitu e Factory.
arabelle	Tallahassee, Carabelle & Planing Mill	Macon	. Ine Eureka Co	. †Soap, Potash, &c.
Cedar Kev	Strickland & Meredith Saw Mill. Camp Bros Lime Works. Tallahassee, Carabelle & Planing Mill. Gulf Railroad Co Planing Mill. F. A. Wolfe & Co Enlarge Pencil Factory. Peace River Phosphate Co. Phosphate Mining. Wm. H. Larimore Saw Mill. Coachman & Sloan Saw Mill. E. P. McElrow & Johns Caming Factory.	Milledgeville	. Macon Furniture Co	Corn Mill.
harlotte Harb.	Peace River Phosphate Co., Phosphate Mining.	Naceochee	St. George Gold Mining Co	†Stamp Mill.
learwater Har.	Coachman & SloanSaw Mill.	Newnan	.Newnan Cotton Mills	. Cotton Mill.
		Newnan	Foster Car Coupling Co	Manufactory.
Dayton	Ballough Bros. & Mansfield Machine Shop. A. R. Butcher	Orange	Lathem & White	.Saw Mill.
ainesville	Fla. Fertilizer Mfg. Co Double Factory.	Priors	.Lathem & White	. fron Ore Mining.
acksonville	Fla. Fertilizer Míg. Co Double Factory. W. J. Winegar Gas Works. Fla. Perfumery & Chem. Co. Perfumery & Chem. Fct.	Puckett Station	.Camp & Cureton	. Box Factory.
acksonville	Jacksonv. Wood Distill'g Co. Wood Alcohol Works, & Fairfield Artificial Stone Co. Artificial Stone.	Quitman	K. H. Williams and others. D. T. Moutford	.Canning Factory.
ey West	P. Pohalski	Reynolds	.D. T. Moutford	Fertilizer Factory.
ev West	Edwardo H. GatoCigar Factory.	Rockmart	Woodstock Iron Co	Limestone Quarrying.
iccimmee	S R Miller Canning Factory	Rockmart	Gordon & Carson. Woodstock Iron Co B. F. Whitehead. J. K. Barton. East Rome Water Works Co. Channel, McKee & Co	. Iron Ore Mining.
ake City, nr	Jos. F. Baya	Rome	. East Rome Water Works Co. . Channel, McKee & Co.	. Stave & Barrel Factory
fiddleburg	A. H. Moss	Rome	Geo. L. Taylor	. Handle Factory.
(illview	A. H. Moss	Rome	Standard Scale Co	.Scale Works.
rlando	Orange County Tobacco- Planting & Mfg. Co Tobacco Manufacturing. South Florida Foundry & Machine Co Enlarged Works.	Rome	Etowah Feed Mills	. Feed Mill.
rlando	Machine Co Enlarged Works.	Rome	Rome Canning Co	Canning Factory.
alatka	H. Brown Brick Works,	Salt Springs	J. C. James & Son	Saw Mill.
ensacola	Machine Co. Machine Co. H. Brown. Brick Works. Pensacola Stone & Build-ling Co. W. P. Head Corn & Rice Mill. G. R. Wilk. Chair Factory. W. A. Larkins Saw & Planing Mill. L. E. Gesham. Fertiling Factory.	Savannah	Rome Canning Co. J. S. Campbell J. C. James & Son S. P. Shotter & Co. Chatham Machine Brick Co.	. Kennery, &c. Brick Works.
uincy.	W. F. Head	Savannah	Gorrie Ice Mfg. Co Savannah Ice Delivery Co.	. Enlarge Ice Factory.
utland	W. A. Larkins Saw & Planing Mill.	Sav. Florida &	Albertson, Paxton & Co	Saw Mill
auble	I. E. Graham Saw & Fraining and	Silver Creek	.W. L. Hickman	Iron Ore Mining.
outh Florida	A. E. McClure, of Jacksonv. Fertilizer Works.	Stegall	John Chatelin	. Planing Mill.
arke	J. C. Clarke	Tallapoosa	.J. C. Jackson	. Planing Mill.
allahasse	Tallahassee Gas & E. L. Co. Gas & Electric Light Wk	Tallapoosa	. J. C. Jackson	. Tin & Copper Work.
allahassee	Saw Mill. Tallahassee Gas & E. L. Co. Gas & Electric Light Wk Florida Phos. & Fer. Co Fertilizer Works. Florida Warehouse & Com- press Co	Taliapoosa	Georgia Ore & Furnace Co.	.Mining, Iron Making.
allahassee }	press Co	Tallapoosa	. J. T. Canble & Co	Cornice Work, &c.
ampa	Lozanos, Pendos & Co Cigar Factory.	Tallulah	.W. D. Young	Planing Mill.
ernon	T. J. Miller	Thomasville	.W. S. Keefer	. Ice Factory.
estfarm	Plant Investment Co Ice Factory. T. J. Miller Crist Mill. Amer. Refrig. & Cons. Co Ice Factory. W. S. West Planing Mill.	Tilton	.G. B. Woodworth	. 2Saw Mill. . Ore Mining.
	GEORGIA.	Tunnel Hill	.C. Hunt	.Corn Mill.
dalrsville	W. C. Henderson & CoMill. Samuel CampSaw & Planing Mill.	Vienna	. W. A. & J. T. Jackson	.Saw Mill.
mairs ville	samuei CampSaw & Planing Mill.	Vienna	Tallapous Broom Co Georgia Ore & Furnace Co. J. T. Canble & Co Tallapous Ice Co W. D. Young L. F. Hale W. S. Keefer. G. B. Woodworth Anderson, Wylie & Co C. Hunt Turin Gianing & Mfg. Co W. A. & J. T. Jackson J. T. & John Collier	.Saw Mill.

LOCATION.	NAME. Hunter & Cox	Возгиная.
Vienna. near	Hunter & Cox	Saw Mill.
Ware County	11-1 MINI 6 MC- C	Shingle Mill.
White County	Thos. V. Cantrell	. Double Flour Mill.
	KENTUCKY	
Ashland	Cannel Development Co	Mining
Ashland	Consolidated Fire Ex. Co	.Fire Extinguishers
Ashland	Consolidated Chem. Eng. Co	Mining.
Beattyville	Cannel Development Co Consolidated Fire Ex. Co Rustic Mining Co Consolidated Chem. Eng. Co Beattyville Min'l & Tim. Co Svlvester Isaace	Mining, &c.
Carlisle	Carlisle Milling Co., for-	+Plana Min ng.
Catlettsburg	merly Rogers & Bastian. Mesin System Gold Min. Co.	Mining
Cerulean Spg	Jesse L. Harper	Grist Mill.
Clear Fork	J. M. Jackson	. Coal Mining.
Covington	Belmont Min'g & Mill'g Co	. Mining, &c.
Covington	Economic Light & Fuel Co.	.Gas Works.
Covington	Latonia Ice Mfg. Co	. Ice Manufacturian
Covington	Crawford Mill & Lumber Co	Lumber Mill.
Covington	Beattyville Min'l & Tim. Cr. Sylvester Isaacs (Carlisle Milling Co., formerly Rogers & Bastian. Mesin System Gold Min. Cc. Jesse L. Harper. G. M. D. Percivall. J. M. Jackson. Belmont Min'g & Mill'g Co. Crawford Mill Co. Economic Light & Fuel Co. Licking Distilling Co. Latonia Ice Mfg. Co. Crawford Mill & Lumber Cc. Covington China Firing Co. Sheppard Coal & Coke Co. Vestern Promoting & Developing Co. Appleman Bros. Madduy Distilling Co. Appleman Bros. Madduy Distilling Co.	. Increased Capital.
Covington	veloping Co	Manufacturing, &c.
Chatham	Glenwood Min. & Smelt. Co	Mining, &c.
Dayton	Maddux Distilling Co	. Distillery,
Frankfort	Capital Brewing Co	. tice Factory.
Greenup	Gladiator Stove Co	Stove Works.
Harrodsburg.	. Harrodsburg Water Co	Water Works.
Henderson	Henderson Water Works	. Coal Mining. . Enlarge Plant
Henderson	Henderson Cotton Mills	Enlarge Mill.
Hopkinsville.	Christian County Co-Ope-	Broom Works
Hopkinsville	Ellis Ice Co	Ice Factory.
Hopkinsville .	Hopkinsville Lime &	Lime & Barrel Wests
Jamison, near	. Ky. Clay & Mining Co	Mining, &c.
Lilly	J. R Crook & Co	. Coal Mining.
Louisville	Globe Fertilizer Co	Double Works.
Louisville	veloping Co. Giena ood Min. & Smelt. Co. Appleman Bros. Maddux Distilling Co. Robert Bartley. Capital Brewing Co. Gladiator Stove Co. James Thelkeld & Son. Harrodsburg Water Co. Clark Bros. Henderson Cotton Mila Henderson Wotlen Mill Co. Christian County Co-Operative Broom Works. Ellis Ice Co. Hopkinsten County Co-Operative Broom Works. Ellis Ice Co. Hopkinsten Co. Lex. Model & Mach. Wk., J. R. Crook & Co. Globe Fertilizer Co. Jouisville Machine & Elevator Works. Butterwick & Etheridge Furniture Co. Willett Ti bacco Mfg. Co. Willett Ti bacco Mfg. Co. Willett Ti bacco Mfg. Co. Standard Coal & Mineral Co. J. G. Mc Etwee.	New Works,
Louisville	Furniture Co	Furniture Factory.
Louisville	Willett T. bacco Mfg. Co	. Tobacco Manufictory
Louisville	Beargrass Woolen Mids	. Double Mill.
Louisville	Louisville Medicinal Co	Patent Medicines,
Louisville	Ky. Electric Service Co	Electrical Appliaren
Louisville	J. G. Mcklwee	Sash & Door Factory
Louisville	Tapps, Leathers & Co Louisville Electric Light Co	Clothing Factory.
Louisville	Ky, Electric Service Co Stanton & Co. J. G. Mcklwee. Tapps, Leathers & Co Louisville Electric Light Co Comstock-Branham Frint-1 ing Co. Mann Boudoir Car Co. Cincinnati South'n R. R. Co Jacob Turnipseed Antique Distilling Co. Hixon Rodman Lumber Co. Folding Hat-Rack Co.	Printing.
Ludlow	Mann Boudoir Car Co	Car Repair Shops.
Maysville	January & Wood Co	+Cotton Mill.
Miliport	Antique Distilling Co	Distillery.
Newport	Folding Hat-Rack Co	Novelties.
Newport	Newport Iron & Steel Co	Tron Works,
Newport	Cincinnati Glue Co	Glue Factory.
Owensboro	Harry Gunther & Bro	Foundry.
Owensboro	Sowell-King Lumber Co Paducah Water Co	. ISaw Mill. . Water Works.
Parie	Green River Coal & Min Co.	Furnace,
Paris	Hixon Rodman Lumber Co. Folding Hat Rack Co. Newport Iron & Steel Co. Old "76" Distilling Co. Geo. Wiedemans Harry Gunther & Bro. Sowell-King Lumber Co. Paducah Water Co. Paducah Fron Co. Paris Water Co. Richmond Gas Works Green River Coal & Min. Co. Marion & Brown. Green River Coal & Min. Co. Marion & Brown.	Water Works.
Riddall	Green River Coal & Min. Co.	Coal Mining.
Scottsville	Manion & Brown	Flour & Grist Mill.
Sorgho	Manion & Brown Nashville Spoke & Hub Co. T. A. Fugua Stanford Planing Mill.	Saw Mill.
Stinson	Lexington & Carter Coun-	Coal Mining
Taylor	Lexington & Carter Coun- ty Mining Co	Coal Mining
Walton	Rouse Bros John & Edward Arnold John W. Barker Carroll Distilling Ce	Flour Mill.
West Fork	John W. Barker	Remodeled Flour Mil.
Wide Awake Winchester	Carroll Distilling Co	Distillery. Enlarge Saw Mill.
Woodbine nr	North Jellico Coal Co	Coal Mining.
	Asher Bros	Water Works.
	LOUISIANA.	
Abbeville	John A. Brookshire	‡Grist Mill.
Covington	. Tammany Land & Lum. Co.	Lumbering.
Lake Charles	O. B. Graves	Machine Shop.
Louisiana	.E. H Cunningham	Sugar Mills.
New Orleans.	The Lafayette Brewing Co	Brewery.
New Orleans	E. H. Cunningham. The Lafayette Brewing Co Nat I Auto. Fire Alarm Co Merchants' & Manufac- turers' Pub. & Erg. Co Tulane Manual Training to School. Maginnis Cotton Mills. La Belle Mining Co	Engraving. &c.
New Colons	turers' Pub. & Erg. Co., (Tulane Manual Training)	Inon Foundant
New Orleans.	Maginnis Cotton Mills	Additional Centre Vil
New Orleans.	La Belle Mining Co	Mining.
New Orleans	La Belle Mining Co American Safety Signal System Co	Electrical Appliant
New Orleans	La E ec. Lt. & Power Co	Enlarged Plant.
New Orleans	Fred. Buisson. La E ec. Lt. & Power Co. Merchants Broom Mfg. Co. Shreveport Iscan. E. L. Co. Z. Donato	Broom Factory. Electric Light Warks
Sliddell	Z. Donato	Saw Mill.
	MARYLAND	100

Band Color C

Bagin Bilot Carn Bilot Carn Crys Edward Fint Fran Gree Gree Jack Meri Meri Mess Moss Moss Moss Vicks Vicks Vicks West West

MARYLAND
Aberdeen J. B. & G. A. Baker Canning Factor. Annapolis Annapolis Electric Li. Co. Electric Light Web. Amer'n Corners. B. W. Parker Canning Factory.
Baltimore Hoenes & Herman Pork Packing, &c.
Baltimore Henderson-Soles Mfg. Co Cake & Cracker Fiction
Baltimore Campbell & Zell Co Manufacturing.
Baltimore Baltimore Incan. Gas Lt. Co
Baltimore, nr Chas. G. Rohr & Son Slaughter Works.
BaltimoreGraf Refrigerating CoRefrigerating Machine
BaltimoreRapid Stopper CoStopper Fasteners.
Baltimore Furniture Workers' Co- New Furniture Patters Operative Mfg. Ass'n
Baltimore Baltimore Press Pub. Co Printing, &c.
Baltimore Water Board Enlarge Water Weits
Baltimore Edison Illuminating Co Electric Light
Baltimore Anchor Prep'd Paint Oil Co. Paint.
Baltimore Coale-Muffler Safety Valve Manufacturing.
BaltimoreR. Tynes Smith Can Co Can Factory.
Baltimore Balto. Carriage & Toy Co Toy Factory.
Delaimone Dichard Soner Mer Co New Show Cast Farm
Kaltimore Electro-Autom'c Transit Co. Electrical familia
Haltimore las. 1. Wallace Wood Sawing
Haltimore Chas. Maempel & Sons Casuing Fatters
Baltimore Leonhardt Wagon Mig. Co. New Wagon Falls

Archi Ashel Ashel

16.70		7-17-1
(87)	NAME.	BUSINESS. BUSINESS. Choffee Reasting. Co. Reduction Works. Canning Factory. Thour Mill. Canning Factory. Thour Mill. Canning Factory. Canning Factory. Canning Factory. Canning Factory. Canning Factory. Canning Factory. Saw & Flour Mill. Can & Canning Factory. Paper Mill. Can & Canning Factory. Cooperage Factory. Remodel Flour Mill. Cooperage Works. Canning Factory. Canning Factory. Canning Factory. Canning Factory. Saw Mill. Granite Quarrying. Doubled Capacity. Flour Mill. Granite Guarrying. Canning Factory.
LOCATION.	Enterprise Coffee Co	Coffre Roasting
Balance	Balto, Ore Mill'g & Mfg.	Co. Reduction Works.
Belgimore	Ias. P. Reale	Canning Factory.
Helait	Geo. V. Gorrell	Canning Factory.
Canvaryille	Centreville Mfg. Co	‡Flour Mill.
Chesteriown	Wm. D. Burchinal, Mgr.	Canning Factory.
Childs	Daniel Harney	+Flour Mill.
Comswell	Frederick Smith	Canning Factory.
Cumberland	C. R. Ladew & Turner	Canning Factory.
Denton	Prock W Redden	+Sam & Flow Mill
Deuten	T T Garey Ir.	Grist Mill.
Denton	I W. Barber & Co	tHominy Mill.
Easton	Hubbard Bros	Can & Canning Factors
Easton	C. S. Garrett & Son	†Paper Mill.
Elkton City	Enterprise Illuminating C	o. Electric Light Works.
Clients City	Fite & Co	Barrel Factory.
Pricott City	Solomon Hose	Cooperage Factory.
Fasrice	Chas. T. Stratton	Remodel Flour Mill.
Fallston	Wm. Gordon	Cooperage Works.
Fallston	August Martin	Canning Factory.
Fountain Green.	Wm. H. Harward	Donn Mill
Freelands	V F Dobinson & Dra	Canning Pastern
Friendship	wm. E. Kodinson & Bro	Saw Mill
Glyndon	Smith & Johnson	Granite Ouassuine
Guilford	Inited Silk Co	Doubled Canacity
Hagerstown	Emmert Bros	Flour Mill
Hageratown	Jagerstown Fence Ma-	1
Hagerstown	chine & Fencing Co	Fence Factory.
stome de Gr. mr.	d. J. Burnet & Co	Canning Factory.
Havre de Grace.	Vathan Middleton	Canning Factory.
Highlandtown V	Vm. Schluderberg	Slaughter House.
Hough Hollow		Canning Factory.
lefferson	T. Steiner & Co	Flour Mill.
onacening	Maryland Coal Co	New Coal Mine.
Lynch.	sellingnam & Mcvey	Canning Factory.
Michaelsville 1	hade Allen & Spedanes	Canning Factory.
Mill Green	ulius Shares	Wooley Mill
Oakland	R Wilson	Canning Factory
Perrymann	as T Walker	Canning Factory
Perry water.	Owens	Canning Factory.
Persynoke City.S	choolfield, Polk & Co	Basket & Crate Factory
Port Deposit F	ock Run Flour Mill	Remodel Mill.
Peckord F	Tice	Canning Factory.
Ridgely I	ay Bros	Canning Factory.
Rising Sun V	m. P. Addison	Enlarge Saw Mill.
tafford h	orace Stokes	Wagou Factory.
Tunis's Mills I	. Tunis and others	Canning Factory.
Jaiouville E	D. Danner	Creamery.
ale	V. E. Koninson & Bro	Canning Factory.
Vanh., D. C	Power Co	Electric Works.
TADC N	Jealy, Hara Torneda Co	Ternados
Wash, D.C. I	W Ames	Shirt Factory
Wast., D.C.	dependent Automatic	lea me
Vash., D. C.	Portable Gas Works	†Gas Works.
Wash., D. C 1	Bray	Rush Matting.
Vatervale St'n. H	. H. & W. E. Klinefelter	Canning Factory.
Web-ter E	arl & Hopper	Canning Factory.
Wve Mills Je	ohn T. F. Brown	Remodel Flour Mill.
,		
	MISSISSIPE	T.
China V	eystone Lum. & Imp. Co	+New Saw Mill
ague ChittoK	arataria Canning Co. and	I com our min.
ilozi	arataria Casning Co. and others erhart Bros	Canning Factory.
emithG	erhart Bros	Broom Factory.

ill, our Mill.

Engines, tc., ng.,

ks.

ka, ant. g. ist Mill. ory. il. g. g. tory. Flour Mil.

aw Mill. g. ks.

ks. ngle Mil. nop.

&c. kc. Cotton Mil. Appliance. cfining. lant. cory. ght Works.

ctory, the Works.

one, de.

one, de

Begue Chitto Keystone Lum. & Intp. Co New Saw Min.
Bilon Barataria Casning Co. and Canning Factory.
others
Cornith Gerhart Bros Broom Factory .
Crystal Springs. Earle-Thomas Co Packing House.
Crystal Springs. Crystal Springs Can'g Co Canning Factory.
Edwards Box Factory.
Enterprise Stonewall Mfg. Co Additional Cotton Mill.
Flint Creek A L. Hatten Saw Mill,
Franklin CoJourdan
Greenville Greenville Ice & Coal Co Enlarge Ice Factory.
Greenville Greenville Brick & Imp. Co. + Brick Works.
Greenville Greenville Water Works Co. Electric Light Plant.
Jackson Co Emilio Cue
Jackson Light, Heat & Manufacturing.
Power Co
MeridianFelix Howell
Meridian Mobile & Ohio R. R. Co Machine shops.
Meridian Williams & Briggs Enlarged Machine Shops.
Mass Point Dantzler Lumber Co Saw Mills.
Moss Point. L. N. Dantzler, Jr., & Mc- Shingle Mill.
Moss Point. Innis Satisfie atial,
MyrdeJ. A. Baker & CoSaw Mill.
Pass Christian Pass Christian Well Ass'n Artesian Wells.
Perth W. N. Maddox Saw Mill.
Roxie A. L. Trevilion Saw Mill.
Tupelo R. G. Reading Machine Shop & Foundry.
Vicksburg Mattingly Milling Co †Fiour Mill.
Vicksburg Vicksburg Spoke Works Spoke Works.
Vicksburg Mulholland Bros Spoke Factory.
Vicksburg Mulholland Bros Cotton-Seed Oil Mill.
West Point Mahaffay & Shurtland Tile Works.
West Point S. N. Muff

NORTH CAROLINA.

SORTH CAROLINA.
Archdale J. M. Tomlinson Mining.
AsheboroGeo. RushSaw Mill.
Asheville W. W. Denning Sash, Door & Blind Facty.
AshevilleT. H. Lindsey Printing, &c.
AshevilleGrant, West & CoManufacturing.
Baseline Grant, west & Co
But
BladesboroC. C. Mercer
Blue Ridge Thomas Gibbs Saw Mill.
Blue Wing, Blue Wing Copper Co Copper Mining.
Blue Wing W. M. Pannebaker Saw, Planing & Corn Mill.
Burlington Alamance Cotton Factory Additional Machinery.
Cabarras Co J. M. Tomlinson Mill.
Charlotte Alpha Cotton Mills Cotton Mill,
Charlette, Victor Cotton Mills Cotton Mill.
Charlotte Adna Mfr. Co Cotton Mill
Charlotte A. T. Hill & Creighton Broom Factory
CharlotteA. T. Hill & Creighton Broom Factory. CharlotteC. O. Mercar
Charlotte Thos Caribaldi and others Conning Factors
Charlotte Candre & Mfr. Co Candre Pactory
Churches I Flame
J. Fishing Cigar Factory.
Charlotte. Charlotte Candy & Mig. Co.Candy Factory. Charlotte. Flaum Cligar Factory. Cascord S. M. Blackweider and Flour Mill. Craven Co. others Saw Mill.
Craven Co Saw Mill.
Durham Sash, Door & Land
Durham Sash, Door & Sash & Blind Factory. Blind Factory. Durham W. Dukes, Sons & Co Enlarge Tobacco Factory.
Durham W. Dukes, Sons & Co Enlarge Tobacco Factory.
Seemon
Bimbeth City. C. E. Kramer & Bro Planing Mill. Bimbeth City. W. O. Temple & Griffin Lumbering.
Bimbeth City W. O. Temple & Griffin Lumbering.
rayetteville P. Thomson, PresidentCotton Mill
Payetteville E. G. Strvon & Co Double Flour Mill
Fayetteville McNeill & Hall Saw Mill.
Fayetteville W. O. Lockamy
Forest City Forest City Cotton Mill Cotton Mill .
Forest City Rice
Forest City J. N. Biggerstaff Shuttle Block Factory.
Franklin Nantahala Marble Co + Marble Mill.
Goldsboro Dewey Bros New Iron Foundry.
Galdshore I D Edward Iron Foundry.
Goldsboro J. R. Edgerton
Greenboro
Committee of the Mill Cotton Mill.
Halis Greensboro Water Co Water Works,
Greensboro Greensboro Water Co Water Works. Halifax, nr Saw Mill. Haulin D. C. Way & Co Saw Mill.
Baw Mill.
Water Works.
Sadaracaville City Water Works. Rickard & Hewitt Marble Quarrying.
Heblands J Western N. C. Land & Low Mill & Power Power
Highlands Western N. C. Land & Saw Mill & Furn, Fact'y.

		4	
	LOCATION.	NAME.	Business.
	Hope Mills.	NAME. Hope Mills Mfg. Co T. L. Stowell Geo. T. Stelner & Co Huff & Stewart N. King's Moustain Mfg. Co. E. W. Faucette F. M. Thompson E. T. Harmon Willow Brook Mfg. Co. Cable Motz Pearson & Co.	. Additional Casson Mill
	Indian Trail	. T. L. Stowell	Mining.
	Jefferson	Geo. T. Steiner & Co	Flour Mill,
ı	Kernersville	Huff & Stewart	Buggy Factory.
1	King's Mount	n. King's Mountain Mig. Co.	Cotton Mill,
Į	Lexin ton	F M Thompson	Cigna Postery.
I	Lexington	E. T. Harmon	Tobacco Factory.
1	Lincolnton	. Willow Brook Mfg. Co	Cotton Mill.
ł	Lincolnton	Cable Motz	. Furniture Factory.
I	Morganton	Pearson & Co	Flour Mill.
١	Morganton, nr.	W A Westman & Co	Gold Mining.
l	Mount Airy	W E Patterson	Tobacco Factory.
I	Mount Airy	L. S. Siceloff	Saw Mill.
ł	Mount Airy	Repass, Davis & Co	. Marblevard.
	Mount Airy .	J. F. & W. A. Moore	. Enlarge Woolen Mill.
	Mount Holly.	. Dewster & Pierce	. Planing Mill.
	Mr. Holly	T. Clark	Knitting Factory.
	Murphy, nr	S. L. Maulthy & Cochurn	Mining
	New Bern, nr.	.I. I. Windfield	Saw Mill.
	Newton	. Newton Spoke & Lumber Co	.Increase Works.
ı	Newton	. Newton Roller Mill Co	. Flour Mill.
I	Oxford	Kimball Cigarette Co	.Stemmery.
ŀ	Oxford	J. I. Kogers	. Tobacco Prize Factory.
ı	Oxford	Kinett	Distinct Light Works.
l	Pigeon River	Isaac Roland	Remodeled Saw Mill
l	Pittsboro	.Chatham Tannery	Tannery.
ı	Raleigh	. Falls of Neuse Mig. Co	. Enlarge Cotton Mill.
ı	Raleigh	People's Gas Co	.Gas Works.
ı	Raleight	Raleigh Lighting, Heating	Electric Light Works.
l	Raleigh	Cable Motz. Pearson & Co W. A. Wortman & Co. W. E. Patterson L. S. Siceloff. Repass, Davis & Co. J. F. & W. A. Moore Dewster & Pierce. M. Holly Knitting Co. J. T. Clark S. L. Maultby & Cogburs. J. J. Windfield. Newton Spoke & Lumber C. Newton Spoke & Lumber C. Kewton Roller Mill Co. Kimball Cigarette Co. J. T. Rogers. Thompson-Houston E. L.C. Kivett. Isaac Roland Chatham Tannery. Falls of Neuse Mig. Co. People's Gas Co. Raileigh Lighting, Heating & Power Co. Raileigh Lighting, Heating & Power Co. Rocky Mount Iron Works Lide Gold Milson Lide Gold Milson Lainer S. Salisburg Prick Co. Lainer B. Lanier. Salisburg Prick Co. Littman & Lichenstein. D. M. Miller R. Tillery R. Tillery R. Tillery R. Tillery R. Tillery R. Tillery	Tobacco Prime Factors
ı	Raleigh	Observer Printing Co	. Job Printing, &c.
l	Reidsville	.C. I. Lewis and others	. Electric Light Works.
	Robbinsville	. W. W. Hampton & Freeborn	.Saw Mill.
	Robeson Co	. R. G. Peters and others	.Saw Mill, &c.
	Rocky Mount	Rocky Mount Jan Works	. Enlarge Cotton Mill.
	Rutherfordton.	. Idle Gold Mine	-Tiron Works,
	Salem	Fishel & Hege	Saw Mill.
	Salem	. Kester Bros	. Machine Shop & Fdry.
	Salisbury	. James B. Lanier	. Barrel Factory.
	Salisbury	Salisbury Brick Co	Brick Works.
	Salisbury	D M Miller	Mineral Water Factory.
	Scotland Neck.	.I. R. Tillery	Cotton-Seed Oil Mill
	Shelby	.Ch. Fromm	Brick Yard.
	Shelby, near	R. B. Miller	Cotton Mill.
	Springdale	.Geo. Wharton	.Saw Mill.
	Statesville	Littman & Lichenstein. D. M. Miller J. R. Tillery Ch. Fromm. R. B. Miller Geo. Wharton Statesville Agricultur' I Im- plement Mig. Co. Statesville Cotton Mills Morrison & Rayner Bros. B. F. Caronsfer	Agricultural Imp. Factor
	Statesville	Statesville Cotton Mills	Cetten Mill
	Statesville	Morrison & Rayner Bros	Flour Mill
	Stony Creek	B. F. Carpenter	Spoke & Handle Factor
	Sylva	A. S. Bryson	Clay Mining.
	Taylorsville, nr.	R. Z. Linney	Quarrying.
	Tunnel	Morrison & Rayner Bros. B. F. Carpenter A. S. Bryson R. Z. Linney Jas. Turner J. W. Fowle E. S. Davis Deaufort County Lumber Co J. M. McQuiston. Killian & Bridges. W. A. H. Schreiber Enterprise Lumber Co. Wilmington Spring Bed & †	Saw Mill,
	Wadeshoro.	E S Davis	Turnentine Dissille-
	Washington	Beaufort County Lumber Co.	Increase Capital
	Waughtown	J. M. McQuiston	Tobacco Factory.
	Waynesville	Killian & Bridges	Enlarge Woolen Mill.
	Webster	W. A. H. Schreiber	Copper Mining.
	Wilmington, nr.	Wilmington Control Pod 2	Saw Mill.
	Wilmingt'n,n. }	Wilmington Spring Bed & Mattress Co	Spring Bed Factory.

SOUTH CAROLINA.

Aiken Aiken Manufacturing Co Pulp Mill.
Anderson: R. F. Divver Machine Shop & Foundament
Arlington Arlington Mfg. Co Enlarged Cotton Mill.
Beech IslandFranklin Kaolin CoKaolin Mining.
Beech Island Thos. J. Davies Kaolin Mining.
Beech Island Stave & Barrel Factory.
Black Mingo F. Rhem & SonSaw Mill.
Centerville ? J. B. Dodd
Charleston Charleston Cotton Mills Cotton Mill
Charleston Palmer Mfg. Co Cooperage Factory, &c.
Charleston L. Parsons
Charleston Imperial Kaolin Co Kaolin Mining.
Clinton M. S. Bailey Wood-Working Factory.
Columbia Capital Cotton Mill Co Cotton Mill.
Columbia Emerson Mfr. Co Shirt Factory
Columbia Piedment L., I. & Inv. Co Saw Mill.
ColumbiaCongaree Mfg. CoCotton Mill.
Fort MillCatawba Cotton MillsCotton Mill.
GeorgetownEhrich & TwiggsSaw Mill.
Georgetown H. A. Hamaker Saw Mill.
Greenville Greenville Pants Mfg. Co Clothing Factory.
Greenville Greenville Oil Mill, Double Mill.
Greenville Piedmont Ice Cotice Factory.
Greenwood Greenwood Mfg. Co Sash & Door Factory.
Greenville Greenville News Co † Printing. &c.
Greenville Barton & Gilleland Harness & Saddlery.
JamisonY. P. Horgan Saw Mill.
Lancaster Lancaster Cotton Mills Cotton Mill.
Laurens R. H. Hudgins & Anderson Foundry.
Orangeburg J. G. Wannamaker Mfg. Co. Patent Medicines.
Pelzer Pelzer Mfg. Co Third Cotton Mill.
Piedmont Piedmont Mfg. Co New Cotton Mill.
Rock Hill Standard Cotton Mills Cotton Mill.
Spartanburg Whitney Mfg. Co Cotton Mill
Spartanburg, nr. P. A. GardnerGold Mining.
Walterboro J. A. Papot Saw Mill.
Walterboro W. P. Du Boise Saw Mill.
White Hall Eskew & Watson Flour Mill.
York CountyJ. S. BrattonMining.
Winnsboro Winnsboro Wagon Co Wagon Factory.

TENNESSEE.

	Alexandria Alexandria Roller Mill Co. Flour Mill.
	Arlington Frank Gaines Saw Mill.
	Arlington Cooper & Bodman Saw Mill.
	AthensJ. J. Ivins Brick Yard.
	Bristol Car Factory.
	Bristol Car Factory. Bristol, nr J. A. Dickey Quarrying.
	Buckeye Pioneer Coal & Coke Co Coal Min. & Coke Ovens.
	Campbell's Sta. Reilly Bros Ouarrying.
	Charleston W. B. Davis and others Creamery.
	Chattanooga Chattanooga Furnace Co Relined Furnace &c.
	Chattanooga Chattanooga River Brick Co. Enlarge Plant.
	ChattanoogaF. H. Foster Mfg. Co Builders' Hardware Facty
	Chattanooga Citizens' Oil & Gas Co Natural Gas.
	Chattanooga Dirtseller Iron Co Mining, &c.
	Chattanooga Chattanooga Brewing Co Brewery,
	Chattanooga Pearl Laundry & Mfg. Co Bag Factory, &c.
	Chattanooga Evening Sun Publishing Co Printing, &c.
	Chattanooga Campbell Co Furniture Factory
	ChattanoogaCampbell Co
	Chattanooga Chattanooga Paint Co Enlarge Factory.
	(Chattanoora Wood Split i
	Chattanooga Chattanooga Wood Split Pulley Factory.
	Chattanooga Dixie Dynamite Co Dynamite Factory.
	Chattanooga Emmonite Powder Co
	Chattanooga, Hamilton Lumber Co †Lumber Mill.
П	Clarksville T. L. Harvie Tobacco Factory.
. 1	Cieveland James Cash Box Factory
	Clinton Edes, Mixter & Heald Zinc New Furnaces.
- 1	Cunton Co
-1	Columbia Martin & CoxCarriage Factory.
- 1	Columbia Craig & Wilkins Enlarge Machine Shops.
-1	Columbia Tankersley Wagon Works Wagon Works
- 1	Concord L. & E. L. Barker Lime Works.
- [Covington J. M. Young and others Cotton Compress.
-1	Covington Covington Indust'l Mfg. Co. Hub & Snoke Factors &c
1	Crossville W. J. Andrews Saw Mill.
1	Cumberland Turner & Ladew Canning Factory.
١.	CurveJ. M. Darnell & CoSaw Mill.

	LOCATION.	NAME.	Bussims.
	Daisy	. Daisy Coal Co	. †Mining. . †Foundry & Mach. Shop. . Saw Mill.
	Dayton Detroit	. White & Dixon. J. C. Vaughan & Co	. ffoundry & Mach. Shop. . Saw Mill.
	Dyersburg Elizabethton	J. C. Vaughan & Co Karchner, Wight & Co W. B. Carter	Stave Factory. Remodel Flour Mill.
	Evansville		.Coal Mining.
	Fayetteville	. Bearden, Thomas & Shaftne . Carmon Bros	Remodel Flour Mill.
	Grand June }	Grand Junct'n Sewer Pipe	Pine & Brick Works
	Hodges	Darwin Coal Co. Bearden, Thomas & Shaftne Carmon Bros Grand Junct'n Sewer Pipe & Fire Brick Works Joseph Davis Huntingd'n Woolen Mills C.	.Improved Mill.
	Huntingdon	Huntingd'n Woolen Mills Co. A. B. Cummings	. Woolen Mill.
	Johnson City.	Magnetic Iron Ore Co	. Plow Factory. Mining, &c.
	Johnson City Knoxville	John Sanders W. J. Savage & Co Knoxville Incan. E. L. Co	Mining, &c. Planing Mill. †New Shop.
	Knoxville	Knoxville Incan. E. L. Co	. Electric Light Works. . Double Mill.
	Knoxville	Knoxville Woolen Mill Co. Frank Heart	. Double Mill, . Clothing Factory.
	Knoxville	Brookside Cotton Mills	Clothing Factory. Enlarge Mill, Ore Mining. Tobacco Factory.
	Knoxville	Unaka Iron Co	. Tobacco Factory.
	Knoxville }	J. H. Rumbough. Knoxville Cold Sterage Warehouse Co	Cold Storage.
1	Knozville, nr	A. D. POPUNG	Charrying
-	Knoxville	Knoxville Lime Co Manchester Mfg. Co	Lime & Barrel Works. Spoke & Handle Factory. Broom Factory.
-	Maryville McMinnville	I. L. Lowe	Broom Factory.
-1	McMinnville	E. G. Mead & Co Eastwood Bros	Stave Factory. Foundry & Machine Wks.
1	McMinnwille	Corl & Calbbla	
-	McMinnville Memphis	Tennessee Mfg. Co	Quarrying, Manufacturing.
- 1	Memphis	Carson & Doty	Enlarge Plant.
- [Memphis	Memphis Artesian Water Co	.Saw Mill. .Increased Capital.
-	Memphis {	Birmingham R. R. Co	Machine Shops.
-1	Memphis	Ellis Numbering Auto. Co	Manufacturing.
-	Memphis	Gardner Gin Co	Cotton Gin Factory.
1	Milan Morristown	Morristewn Medicine Co	Patent Medicines. Broom Factory:
1		Mossy Creek Woolen Mill 1	
-	Murfreesboro	Geo. E. Downing	Woolen Mill.
1	Nashville {	Liebermann, Lovemann &	Water Works.
1	Nashville	O'Brien	Drugs, &c.
1	Nashville {	H B. Grubbs Candy & !	
1	Nashville	Nashville Democrat Pub Co.	Printing &c
. 1	Nashville	Nashville Pottery Co	Pottery.
1	Nashville 1	Mathias Denoen Junks Bros.' Lumber & Mfg. Co. Diehl & Lord	Sash & Door Factory.
1	Nashville	Mfg. Co	†Lumbering.
٦	Nashville	Vanderbilt University	Vinegar Factory, Forge & Foundry, Saw Mill,
1	New Market	C. C. Mengel, Jr., & Bro A. H. Totter & Larrance	Saw Mill.
1	Oliver Springs	Mitchell Bros	Saw, Planing & Corn Mill. Coal Mining. Saw Mill,
1	Owen	Mitchell Bros Lathrop & Schofield P. Henderson	Saw Mill, Wagon Factory
1	Ringgold Rockwood	W. P. Hambaugh	Wagon Factory. Remodeled Flour Mill.
1	Rockwood	J. F. Tarwater	Coal Mining. Ore Mining.
ı	Rogersville	Robert M. Kyde	Flour Mill. Hub & Spoke Factory. Carriage Factory, Enlarge Machine Shop. Brick Works.
ı		McDowall Bro	Carriage Factory.
1	Shelbyvilie! Sparta	F. M. Johnson Burns & Co	Enlarge Machine Shop.
ı	Sweetwater	Sweetwater Creamery	Creamery,
ı	Tellico Plains	W. C. Heyser & Co D. A. Merreil	Lumber Mill,
1	Tresevant	Burns & Co. Sweetwater Creamery. W. C. Heyers & Co. D. A. Merrell. Fuges, Harris & Co. W. H. Fry. Tullahoms. Mfg. Co. E. H. Williams. W. F. Matthews. Hall	Remodel Flour Mill.
1	Tullahoma	Fullahoma Mfg. Co	Tannery, Bed Spring Factors
1	Tullahoma	E. H. Williams	Cigar Factory.
1	Vashington	Hall	Ped Spring Factory. Cigar Factory. Flour M II. Saw Mill.
1	Whitesburg	Hall	Memodel Flour Mill.
1			
1	Winchester,		Creamery. Electric Light Works.
		TEXAS.	

- 1	windsester Outon & Smith Liettric Light Works.
	TEXAS,
- 1	Athens Texas Fire Brick & Tile Co. Fire Brick Works, &c.
	Austin Cherokee Land & Iron Co Iron Mining, &c., Austin Martin & Walker Lime Works,
- 1	Passement Town & Lumber Co. Blanks Mill
- 1	Austrona Walker Co. Planing Mill. Beaumont Texas Tram & Lumber Co. Planing Mill. Beaumont Beaumont Lumber Co. Doubled Capital Stock. Beaumont Nosa Mills Co. Increased Capital Stock. Belin Corn Mill & Gin. Bexar Bexar Brick & Tile Co. Brick Works.
- 1	Recument None Mills Co Increased Control Stock.
- 1	Bells I. W. Swelk
- 1	Bexar Bexar Brick & Tile Co Brick Works
- 1	Blanco, nrK. R. Seaton
- 1	Blanco, sr. K. R. Seaton
- 1	Bryan Central Publishing Co Printing, &c.
- 1	Burnet Mayor & City Council Artesian Well. Carr Houge Pottery. Centre B. G. Hicks Tannery. Centre J. A. Jarratt Saw Mill & Spoke Fact'y. Cisco. T. R. Blake. Corn & Flour Mill. Clarksville. James Jamison. Grist Mill. Cleburne Thompson-Houston Co Electric Light Plant. Cleburne Cleburne Gas Light Co. Gas Works. Clifton J. B. Pool and others. Flour Mill. Columbus Water Power & Water Power. Corsicana. Corsicana Gas Light Co. Gas Works. Corsicana. Tabor Bros. Jewelry.
- 1	Carr Houge Pottery.
- 1	CentreTannery.
- 1	Class Blake Command A Spoke Fact'y,
- 1	Clarkerdile Tomos Tomison ACrics Will
- 1	Claburna Thompson Houston Co. Floresto Links Blanc
- 1	Cleburne Cleburne Gas Light Co Gas Works
- 1	Clifton I. B. Pool and others Figur Mill
- 1	Columbus Water Power & J
- 1	Columbus Mfg. Co Water Power.
-1	Corsicana Corsicana Gas Light Co Cas Works.
- 1	Dallas, Tabor Bros.' Jewelry Co Jewelry.
- 1	DallasChristian Courier Pub. CoPrinting.
- 1	DallasBed Spring Factory.
- 1	Dallas McRea, Lally & Son Water Works.
- 1	Dallas Herman Bros Clothing Factory.
- 1	Dallas Pratt Soap & Mig. Co Soap Works.
- 1	Dallas Form Hour Wills Double Flore Wills
	Decaring D Resembary & Co. Flour Mill.
- 1	Decatur Decatur Improvement Co Floredo Le & Water Wit-
- 1	Decatur Decatur Mining Co Mining
- 1	Denison Choctaw Coal & Railway Co. Mining. &c.
- 1	Denison Denison Coal & Mining Co Coal Mining.
- 1	El Paso El Paso Smelting Works Smelting Furnace.
-1	El Paso El Paso Sampling Co Reduction Works.
- 1	El Paso El Paso Ice & Ref. Co Enlarge Ice Factory.
	El PasoA. W. Dutton
	FlatoniaJ. D. Braddock & CoTannery.
-1	Post Worth W II Wright West Country Board Sagar Mill.
-1	Fort Worth Comeron & Totum Flow Mill & Planters
-1	Fort Worth Fort Worth Tannery Co Tannery
ч	Fort Worth Publishing & I
-1	Fort Worth School Supply Co Printing, &c.
-1	Fort Worth Fort Worth Paper Mill Co Paper Mill.
1	Fort Worth Ft. Worth Light & Power Co. Electric Light Works.
-1	Fort Worth Anchor Flour Mills Enlarge Mill.
-1	Fort WorthA. A. Bridges Flour Mill.
1	Fort Worth Novelty Flour Mills Enlarge Mill.
1	Galveston Texas Ice & Cold Stor. Co Ice Factory.
-	Calveston Neptune Ice Works Improved Plant,
-1	Colnerville Anadorke Coal Minley
-1	Greenvine W A Humphyles
-	Greenville Texas Compress Associat's 1Cotton Compress
н	Greenville I. M. Cook and others Water Works.
-	Greenville, C. A. Murray and others Electric Light Works.
	Haskell Tyson & Carter
	HawkinsT. S. McSpadden
	Henderson Texas Canning Co Canning Factory.
	Henrietta Henrietta Improvement Co., Water Works.
	Columbus Water Power & Mater Power. Mig. Co. Corsicana Corsicana Gas Light Co. Gas Works. Dallas. Tabor Brus.' Jewelry Co. Jewelry. Dallas. Christian Courier Pub. Ca. Printing. Bed Spring Factory. Dallas. McRes, Lally & Son. Water Works. Dallas. Herman Bros. Clothing Factory. Dallas. Herman Bros. Clothing Factory. Dallas. Busz Gold Mining Co. Gold Mining. Dallas. Busy Four Mills. Double Flour Mill. Decatur. Decatur Improvement Co. Electric L. & Water Wks. Decatur. Decatur Improvement Co. Electric L. & Water Wks. Decatur. Decatur Mining Co. Mining. Denison. Choctav Coal & Rallway Co. Mining. El Paso El Paso Sampling Co. Reduction Works. El Paso El Paso Sampling Co. Reduction Works. El Paso A. W. Dutton El Paso A. W. Dutton El Paso A. W. Dutton Fort Worth W. H. Wright Wood Scouring Factory. Fort Bend Co. State Penitentiary Beard Sngar Mill. Fort Worth Fort Worth Tannery Co. Tannery. Fort Worth Fort Worth Tannery Co. Tannery. Fort Worth Fort Worth Paper Mill Co. Paper Mill. Fort Worth Anchor Flour Mills. Enlarge Mill. Galveston Reptune Ice Works. Improved Plant. Gainesville. Brady Bros. Hour Mill. Galseville. Jan. Cook and others. Electric Light Works. Forenville. Jan. Cook and others. Electric Light Works. Greenville. Jan. Cook and others. Electric Light Works. Forenville. Jan. Cook and others. Electric Light Works. Forenville. Jan. Cook and others. Electric Light Works. Flour Mill. Hewards. T. S. McSpadden. Elaw Mill. Henderson. Texas Canning Co. Canning Factory. Houston. Heusston Ice Co. Lee Factory. Houston. Heusston Ice Co. Electric Light Works. Houston. Heusston Ice Co. Electric Light Works. Houston. Heusston Ice Co. Lee Factory. Heusston. Heusston Ice Co. Lee Factory. Houston. Heusston Ice C
1	Houston Houston Ice Co
-	Houston T. W. Anderson Electric Light Works;

LOCATION.	NAME.	Business.
Houston	Montgom'y Mill & Lum.	Co.Lumbering.
Houston	Burs, Peters & Co., Co	n- Cotton Seed Oil Mill.
Laredo Laredo Lindale Malakoff Marshall, nr Marshall Mexia	Laredo Electric Light Co Dillon & Son	o Brick & Tile Works Saw Mill. Co. Electric Light Works Canning Factory. [2] Quarrying.
Mineola	R J. Smith & Sons Mineola Can'e & Evan	Furniture Factory.
New Braunfels	Farmers' Alliance Co-Op rative Mfg. Co	+Woolen Mill.
Orange. Overton. Overton. Palo Pinto Paris. Pittsburg. Roby. San Angelo. San Antonio. Seven Oaks. St. Jo	A. Gilmer A. Gilmer Alford & McGilvery Duglis & Co. Palo Pinto Coal Mining Paris Foundry & Mach. W Dobbins & Hudson Pit sburg Canning Co. Glasscock San Angelo Fur Co. F. F. Collias Mfg. Co. San Antonio Coal Co. Thos. Dignowity and oth O'Donnell. Outhern Mfg. Co. On Antonio Gas Co. N. Fisher City St. Jo Milling Co. Sulphur Springs Ice & It dustry Co. Musertwater Mining Co.	
Texarkana Tyler Tyler Cyler Cyler Tyler Tyler Tyler Tyler Tyler Tyler Tyler Tyler Tyler	levarkana Water Works lyler Electric Light Co lyler Canning Co L. Caspery lovenkatt & Allen lyler Bottl'g & Candy W exas Canning Co	Co. Water Works Electric Light Works New Canning Factory Foundry & Plow Factory Box & Basket Factory. ks. Candy Factory Canning Factory Canning Factory.

Weatherford .	Weatherford Native Jute Rope Mfg. Co	Jute & Rope.
Woodville	Votow, Ganchan & Davis.	Brick Yard.
	VIRGINIA	
Abingdon	Weatherford Native Jute Rope Mg. Co. Votow, Ganchan & Davis. Alexandria Gas Works. Alexandria Gas Works. Alexandria Gas Works. Alone Canning Co. Morton Jopling. J. E. Jackson. Wm. A. Lane. R. G. Scott Big Stone Gap Water Co. J. H. Hensley. Birch & Dutton. S. Reley Bros. Bristol Machine & Saw Wk. Broadway Steam Creamery H. T. Davis. Rristol Machine & Saw Wk. Broadway Steam Creamery H. T. Davis. Rufus Brugh. Lemon & Hirt Charlottesville & Un. of Va. E. L. & Gas Co. G. W. Spooner & Son. Churchville Canning Co. E. M. Nettleton. Tuckett & Son. The Bee Co. Schoolfield & Watson. Harrisburg Handle Co. G. T. De Long & Co. J. T. Crush. Depon & Humbert. S. C. Showalter. T. P. Goodwin. S. P. Rader George Graybill Thrasher, Craft & Co. Williams & Bro. Austin & Bros. Nofsinger & Hoffman. F. I. Smiley. Austin & Bros. Nofsinger & Hoffman. F. I. Smiley. J. N. Slicer & Co. John M. Holladay. J. N. Slicer & Co. John T. Campbell Robert Thurman & R. M. J. G. E. Trass S. L. Hagerman. Buck & Newsome. Wm. B. Bean L. E. Evans. Geo. E. Cassell S. L. Hagris & Stuart Lynchburg Iron Co. Dental Chewing Gum Co. Lyncholurg Cotton Mill & J. Ramis & Stuart Lynchburg Gum Co. Lyncholurg Cotton Mill & J. Ramis & Stuart Lynchburg Gum Co. Lyncholurg Cotton Mill & J. Ramis & Stuart Lyncholurg Gum Co. Lyncholurg Gum Co. Lyncholurg Gum Co. Collanorgan Co. Wm. Hollanday Co. Manthester Mfg. Co. Glamorgan Co. Wm. Holls Lyncholurg Co. Collanorgan Co. Willis. Harris & Stuart Leftwich, King & Co. Frederick Rode. Manchester Mfg. Co. Glamorgan Co. Wm. Hollanday Co. Wm. E. Fayenbaker Leftwich, King & Co. Frederick Rode. Manchester Mfg. Co. Glamorgan Co. Wm. Hollanday Co. Wm. E. Fayenbaker Co. Willis	Canning Factory.
Alexandria	Alexandria Gas Works	Canning Factory.
Amherst Co	Morton Jopling	. Canning Factory.
Amherst	J. E. Jackson	Canning Factory.
Bethel	. R. G. Scott	. Canning Factory.
Big Island		. Pulp Mill.
Big Stone Gap	Big Stone Gap Water Co	Reick Vard
Big Stone Gap	Birch & Dutton	Saw & Planing Mill.
Blue Ridge Spe	Riely Bros	. Canning Factory.
Bristol	Broadway Steam Creamery	s. Manutacturing.
Brown's Cove	H. T. Davis	.Saw Mill.
Brugh's Mill	Rufus Brugh	.Canning Factory.
Callaways	Charlottesville & Un. of	Placesia Light Works
Charlott sville	Va. E. L. & Gas Co	Electric Light Works.
Charlottesville.	Churchville Capping Co.	Capping Factory
Clarke Co		Ore Mining.
Covington	E. M. Nettleton	. Planing Mill.
Danville	. The Bee Co	Printing, &c.
Danville	Schoolfield & Watson	. Tobacco Factory.
Estillville	. Harrisburg Handle Co	Axe Handle Factory.
Estiliville, near	.G. T. De Long & Co	.Canning Factory.
Fincastle	.J. T. Crush	.Canning Factory.
Fincastle	Depon & Humbert	Canning Factory.
Fincastle	.T. P. Goodwin	.Canning Factory.
Fincastle	.S. P. Rader	.Canning Factory.
Fincastle	Thrasher, Craft & Co	Canning Factory.
Fincastle	. Williams & Bro	. Canning Factory.
Fincastle	Austin & Bros	. Canning Factory.
Fincastle, pear.	F. L. Smiley	Canning Factory.
Fincastle, near.	.A. T. Booze	Canning Factory.
Glen Wilton	Rinehart	Grist Mill
Golansville	S. W. Allen	.tSaw Mill.
Green Forest	.C. B. Church	Ore Mining.
Hallwood	Hampson Mfg. Co	Barrel Factory, Fdry, &c
Hampton		Electric Light Works.
Holladay	John M. Holladay	Capping Factors
Keyser	Wm. E. Fayenbaker	Broom Factory.
Koiner's Store.	. J. C. Plains	Canning Factory.
Kountz	R F Gravely & Sons	Flour Mill.
Lexington	Lexington Canning Co	Canning Factory.
Liberty	John T. Campbell	Canning Factory.
Liberty	Leftwich	Tobacco Factory.
Liberty	G. E. Trass	Canning Factory.
Liberty, near	S. L. Hagerman	Canning Factory,
Lick Run	Wm. B. Bean	Ore Mining.
Lithia	L. E. Evans	Pickling Factory.
Lovely Mount	Samuel D. Newman	Knit Goods Factory.
Lovely Mount	Chas. W. Lucas & Co	Brick Works.
Lovettsville	Loudon Creamery Ass'n	Creamery.
Lowry	Wm. A. Liggan.	Mattress Factory.
Lynchburg	A. E. Willis	Canning Factory.
Lynchburg	Harris & Stuart	Wagon Factory.
Lynchburg	Dental Chewing Gum Co	Factory.
Lunchhurg	Lynchburg Cotton Mill &	Cotton Mill.
Lanchburg.)	Va Nail and Iron Works	Increase Capital
Lynchburg	Glamorgan Co	Enlarge Iron Works.
Lynchburg	Harris & Stewart	Carriage ractory.
Lynchburg	Frederick Rode	Logacco Factory.
Manchester	Manchester Mfg. Co	Mining, &c.
Marion	Glamorgan Co	Water Works.
Middlebrook	Nair & Burger	Canning Factory.
Naylors, near	Waddington & Holmes	Canning Factory.
Norfolk	Seaboard Water Co	Water Works.
Norfolk	Norfolk Fuel & Gas Lt. Co	Gas.

Ice Factory.
Saw Mill.
Electric Light Works
Paper Box Factory.
Canning Factory.
Pickling Factory.

nia Mfg. Co

LOCATION.	NAME.	BUSINESS.
Petersburg	Petersb'g Granite Quar. Co	Quarrying.
Petersburg	Petersburg Electric Lt. Co	Enlarge Flant.
Petersoarg	Geo. Stearns	SHR PACTORY.
Petersburg	Petersburg Fuel, Power & Lighting Co	Gas Works.
Pond Gap	Kunkle Bros	!Tannery.
Port Republic	Grop, Cash & Co	† Foundry.
Portsmouth	Barksdale Mfg. Co	. Manufacturing.
Portsmouth	Portsmouth Record Pub. C	o. Printing, &c.
	Mahoneyville Distillery Co	
Pulaski City	Bertha Zinc Co	To Double Capacity.
Pulaski City	Nicholson & Teaney Hutcheson & Stuart	Enlarge Brick Works.
Raphine	Hutcheson & Stuart	Canning Fa tory.
Raphine		Foundry & Machine Shop o. Electric Light Works.
Richmond	Va. Electric Lt. & Power C	o. Electric Light Works.
Richmond	Va. Mining & Mfg. Co	. Mining, &c.
	N. Y. & Richmond Mfg. Co	
Richmond	Finney Bros	. Grist Mill.
Richmond	Crimora Manganese Co	. TMining.
Richmond	City	Enlarge water works.
Richmond }	type Co	Electrotype Foundry, &c. ; Mattress Factory.
Roanoke	E. H. Stewart	‡Mattress Factory.
Roanoke	Baltimore United Oil Co	Cooperage Factory.
Roanoke	Patterson, Wilmeth & Co.	. Planing Mill.
	Crozer Steel & Iron Co	
Roanoke	West End Brick Co	Brick Yard.
Rosnoke J	Roanoke Brick Mig. &	Brick Works
**************************************	Roanoke Brick Mfg. & Construction Co	Direct Works.
Rustburg	Burford	Saw Mill.
South Boston	Boston E. L. & Power Co	o. Electric Light Works.
South River	Chas. F. Jordan	Canning Factory.
Spottswood	Spottswood Canning Co	Canning Factory.
Spottsylv'a Co.	Gray	Saw & Grist Mill.
Stafford Co	McPherson	tStamp Mill.
Staunton	S. P. Hite	. Patent Medicines.
	Geo. H. Haines & Son	
	L. Shaver	
Troutville	H. P. Meseneen	Prick Works
Warrenten	Wm. Gouldthrope	Flow Mil
Warrenton	D. Garland	Som Mill
Waterlee	Armstrong & Shaw	tSaw Mill
Weston	trinstrong of Shaw	Stave Fact. rw
Winchester	. M. Long & Danier Baker	Canning Factory
Winchester.	Kern, Barr & Co	tWoolen Mill.
Woodstock	d. V. French	Flour Mill.
Wytheville	Wythe Canning & Mfg Co.	.Canning Factory.
	Wythe Canning & Mfg. Co. Virginia Publishing Co	Printing, &c.
	and the same of the same	

WEST VIRGINIA.	
Beverly Tygart's Valley Boom & Lumber Mills.	
Lumber Co	
Braxton C. H Russell & Pool	
Buckhannon Phil. & Buckhan'n Boom Co. Lumber Booms, &c.	
Buckhannon Upshur Boom & Lumber Co. Lumbering.	
Burton	
Charleston Winkler Coal Co Coal Mining.	
Charleston, nr. A. Devereux	
ClarksburgClarksburg Electric Lt. Co Electric Light Works	
Clarksburg Farland Cool & Coke Co Coal Mining.	
Coopers Turkey Gan Coal & Coke Co Coal Mining Coke &	C.
Black Water Boom & tr.	
Davis Black Water Boom & Lumbering, &c.	
Elizabeth Joseph Hale	
Elkins, near Potomac Lumber CoSaw Mill.	
Evansville J. Bowman Woolen Mill.	
Falling Waters. Mrs. E. Z. Stahley	
Harper's Ferry. Dougherty Cable Tract'n Co. Cable Traction Roads	0.
Hartford City Liverpool Salt & Coal Co Salt, &c.	, 000
Cheet River Room & Lum.	
Hendricks Cheat River Boom & Lum- ber Co Saw Mill Boom, &c.	
Huntington Davis Flour & Rolt Co Flour Mill Machinery	
Huntington. Newport News & Missis Paint Shops. Jane Lew V. B. Flesher	
runtington sippi Valley R. R. Co Faint Snops.	
Jane Lew V. B. Flesher Lumber.	
Kearneyville Getzendaner & Koberts Creamery.	
Kingwood Kingwood Coke Co Mining & Coke Makin	ıg.
Malden Straughan Mining Co Coal Mining.	
MartinsburgStandard Lime & Stone CoLime Works. MurraysvilleMurraysville Mfg. CoLumber Mill.	
ParkersburgLittle Kanawha Lumber Co. Planing Mill.	
Parkersburg Jenny Electric Light Co Electric Light Works.	
Parkersburg Parkersb'g Brick & Tile Co. Brick & Tile Works.	
Butcher & Beeson Cigar Louis	
Parkersburg Butcher & Beeson Cigar Cigar Factory.	
Piedmont Walsh, Fay & Co Machine Works.	
Ronceverte Ronceverte Furniture Co Enlarge Factory.	
Ronceverte St. Lawrence Boom & Double Planing Mill.	
Wellsburg Palace Horse Car Co Cars.	
West Virginia Martin's Ferry Con. Co Mining, &c.	
Wheeling Caldwell & Peterson Mfg.Co. Sheet Metal Works.	
WheelingSpear's Axle CoAxle Works.	
WheelingCity	
WheelingHobbs Glass Co†Glass Works.	
Wheeling, East	
white Suipa, S.A. E. riuddieston Planing Mill.	

tRebuilt or being rebuilt after being bu †Companies or firms in existence prior to Jan 1, 1888, but since that time have either enlarged their works or built new works, or increased capital. In many of these cases given in this list, reference is made to entirely new works built by old firms.

Big Developments in Kaolin-Increase in Cotton Manufacturing.

dence MANUPACTURERS' RECORD.]

GRANITEVILLE, S. C., March 23, 1888.

While most of the Southern States are having their booms, South Carolina has remained comparatively in the background, as far as the advertisement of her immense resources is concerned. I am sorry to say that very few, even of those who ought to know most of the natural resources of this State, know comparatively little about them and say less. Yet quietly and without much ado cotton manufacturing has grown with immense strides in the last few years, until now she stands foremost in the list of Southern manufacturing States. Taking the population of this State and of the other States and the number of pounds of cotton manufactured per capita in each as the basis of the calculation, we find that South Carolina manufactures 43.9 lbs, per capita, Georgia 36.5 lbs. per capita, North Carolina 21.2 lbs. per capita, Tennessee 9.0 lbs. per capita, while Alabama manufactures only a little more than 8.0 lbs. per capita. While this is gratifying to South Carolina, yet she is still busily engaged in building new mills, and the prospect for a large increase in manufacturing industries is assured in the near future. Aiken county is taking the lead in the development of her resources. Aiken. the county seat, is famed as a health resort. The many

never-failing streams furnish abundant water-power for nufacturing and other purposes. On Horse creek within less than 20 miles of its length, are two cott gins, two saw mills, a pottery, where fine majolica ware is made; Vaucluse Cotton Factory, 10,500 spindle; Graniteville Cotton Factory, 23,000 spindles; Langley Cotton Factory, 15,000 spindles; Bath Paper Mill, who all kinds and qualitie of paper are made; Twiggs Pulp Mill, where "soft wood" is manufactured into pulp for paper and other purposes. Aiken county has three railroad in operation within her territory, three other building and several o hers under survey The county lies on the Savannah river at the head of navigation, and therefore enjoys exceptional facilities in the way of transportation and rates. Near Bath Paper Mill was once a small village called Kaolin from the fact that immen deposits of the finest kaolin were found there. This kaolin was manufactured into china ware, fire-brief etc. This industry thrived until the beginning of the war, when it was abandoned. These deposits were neglected until bought up by Northern parties for less than a hundredth part of their value. McNamee & Co., the owners of this property, control the market for the unwashed kaolin in the United States. Several land owners in the same vicinity found deposits of kaolin, but when they attempted to force the clay on the market McNamee & Co. usually bought up the property or low. ered the price of kaolin until they effectually stopped competition. But within the last few months im deposits have been found in several parts of the county, e being quite fine and free from grit, but most of k requiring washing to remove foreign matter. The people are wild about it, and the old sand hills worth only \$1 or \$2 per acre have leaped up to \$40, \$50 and \$100. Several companies have been formed to manufacture and ship the kaolin, while others are organizing. Among them in operation are the Imperial Kaolin Co., capital stock \$100,000, Mr. Wagener, of Charleston, president. This company is building 25 or 30 miles of railroad to the works in Aiken county. They have had their kaoli analyzed, and it is pronounced to be of superior quality, and more, they have sent samples to Europe and bad is manufactured into ware, which is pronounced to be of excellent quality. Specimens of this ware can be seen at the office of the company in Charleston. The Aike Porcelain & Manufacturing Co., of Aiken, Mr. Emanne president, capital stock \$50,000, with the privelege of increasing to any desirab'e amount, is now developing its property extensively. They are putting in a plant to cost \$15,000; also building a railroad 2\frac{3}{2} miles long to connect at Graniteville with the S. C. R. R. and the R & D. R. R. This will give them fine shipping facilities, and they expect to have their clay on the market in six weeks. They are arranging to cut timber off their own property to erect storehouses, warehouses and tenant h This company will not only ship kaolin, but intends to manufacture it into all kinds of useful ware; also to manufacture drain pipe, sewer pipe, fire-brick, chis flues,&c. The stock of this company has all been take up and they propose to enlarge their plant extensi and increase their capital stock, probably to before many months have passed. Some of the o companies are: the Davies Manufacturing Co., cap stock \$50,000; the Allen Co., capital stock \$50,000; the Lamar Co., capital stock \$50,000, and the Franklin Co. capital stock \$50,000. The Graniteville Mining & Personal Control of the Control lain Co., capital stock \$50,000, with the privilege of i creasing to \$100,000, is now being pushed by Mr. W. & Howland, of Graniteville, S C., while Dr. T. P. Edward, of Graniteville, is agitating the forming of a stock com pany to work his extensive beds, and Mr. J. H. Edwards and others are busily prospecting to ascertain the extent of their kaolin deposits. Mr. W. S. Howland, an expert, of their kaolin deposits. Mr. W. S. Howland, an expet, says that the kaolin deposit of Aiken county is the largest in America, if not in the world. After washing, the Aiken county kaolin is pronounced to be as good if not better than the best English, French and China clay, and, while the English clay only nets 20 or 25 per emails after being washed, the Aiken clay nets from 75 to 90 per cent. Parties are agitating the question of building the and drain pipe works, while it is likely that other industries of similar character will spring up soon.

The Atlantic Coast Line is surveying a line which will run through the heart of the kaolin region, and as some as it is permanently located villages will be laid out and built up.

built up.

Picks, shovels and augurs are being brought into requisition; the old sand hills are being due and bride into, and more clay is being found every day. If all is true that is told of this wonderful find there is no reason why Aiken county will not manufacture a large share of the china ware for the United States, and towns spring up which may rival Trenton, N. J., in this important industry. Owners of kaolin deposits are constantly receiving aid from outside parties in developing their clay. Twenty thousand tons of kaolin were imported during last year, and the companies of Aiken county hope to supply a large portion of this demand, besides exporting to a considerable amount.

of

"ANNISTON !*

A Romance of the New South."

Hon. Wm. D. Kelley,

ower for se creek, so cotten likes waspindles; Langley Il, where ggs Pulp pulp for as three se others e county e county

way of was once immense re. This ire-brick,

ning of deposits

varties for

arket for eral land olin, but

market

or low-

stopped

county, toot of it is people ily \$1 or Several and ship ing those al stock it. This to their r kaolin

quality, d had it to be of

manuel, elege of

veloping plant to long to

the R &

also to chimney en taken ensively \$500,000, ne other , capital 500; the tlin Cu,

Porce of is-

r. W. S.

dwards, ck comidwards

exteni experi,

e largest ing, the d if not a clays, er o nt. o 90 per ling tile indus-

ich will as soen out and

ht into d bored If all is

reason share of

spring tant inreceivir clayduring nope to porting THE GREAT PENNSYLVANIA STATESMAN,

After many weeks of careful investigation of the resources and advantages of the iron section of Alabama, lately wrote an exceedingly interesting article entitled "Anniston: A Romance of the New South." In this article he gave an enthusiastic description of the growth of Anniston, widely known as "The Model City of the South," and of its wonderful development and marvellous mineral wealth. Judge Kelley declares that Anniston is an

"IDEAL INDUSTRIAL CENTER,"

And says that "it is in many respects the most remarkable center of the iron industry in the Southern States."



ANNISTON INN

Anniston is beautifully located in the Alabama Mountains. It is surrounded by the Most Marcellous Mineral Resources of the South, by Vast Forests of Virgin Timber and by a Magnificent Farming Country. There are twelve Furnaces in the "Anniston Iron District," (two of them making the celebrated "Woodstock Iron," being within the city limits, and two more, to make Coke Iron, being under construction.) Anniston now has Three Banks, the Best Schools in the State, Fine Churches, Opera House, one



GRACE EPISCOPAL CHURCH.

of the Largest Cotton Mills in Alabama, Immense Car Wheel and Car Axle Works, Car Works, Rolling Mill, Machine Shops and Foundries, a large Steel Bloomary, the only one in the South, a 90-inch Morse Cotton Compress, immense Fire Brick Works, costing \$100,000, Planing Mills, &c., and is now building two Coke Furnaces, to turn out 2,100 tons of iron a week: Iron Pipe Works, the largest in the world, to employ 900 hands and consume 200 tons of pig iron a day; a \$60,000 Agricultural Implement Factory; Electric Street Railroad; a \$30,000 Union Depot, &c.

THE UNITED STATES ROLLING STOCK COMPANY, OF NEW YORK, having a capital of \$4,000,000, are now building at Anniston

GIGANTIC CAR WORKS,

Including Rolling Mill, Foundry, Machine Shops, &c., to cost \$1,000,000, to employ 1,000 Skilled Mechanics, and to turn out 20 complete Cars a day, including freight, passenger, sleeping and parior cars, everything, from making the wheels to the upholstering, to be done in these works. This is the most important industrial enterprise ever established in the South by Northern capital.

THE ENTERPRISES

Now under construction, and for the building and running of which every dollar has been raised, will require over 4,000 workmen in addition to those now here. The population, now 10,000, will be about 25,000 by the end of 1888. Great inducements offered to manufacturers to locate here.



ANNISTON INN-GRAND STAIRCASE.

OVER 100,000 ACRES

Of the Finest Iron Ore, Timber and Coal Lands in Alabama, including the great Cahaba Coal and Iron Property of 40,000 acres of the best Coking Coals in the South, are owned by Anniston capitalists, and are being developed in the interest of this town. These Lands, the New Furnaces, Pipe Works, Railroads to develop these properties, &c., HAVE ALL BEEN PAID FOR IN CASH, THERE BEING NO DEBTS OR BONDS TO ENCUMBER THESE GREAT ENTERPRISES. There are

SPLENDID OPENINGS HERE

for many industries, large and small, such as Cotton and Woolen Mills, Foundries and Machine Shops, Chain Works, Agricultural Implement Factories, Nail Mills, Wood-Working Establishments of all kinds, Brick and Tile Works, Flour and Corn Mill, &c., &c. Wholesale Dry Goods, Grocery and Hardware Houses are needed, and a large trade could be secured at once.

Contractors and Builders will find splendid opportunities for profitable investments in building dwellings, stores, &c. At least 2,000 new houses will be needed this year to accommodate the people to be brought here to operate the new enterprises under way, and others.

ANNISTON'S CLIMATE

Is Unsurpassed for Weak Lungs and Throats. It is dry and bracing, delightfully sunny and warm in winter, and cool, with never-failing breezes in summer. Its location in the mountains makes its summer climate a great attraction, and Northern people will find it cooler and more pleasant here than in their own homes. Here are found Pure Air, Good Water, a Salubrious Climats, Absolute Freedom from Malaria, Well-Pased Streets and the Finest Hotel in the State, costing \$300,000.

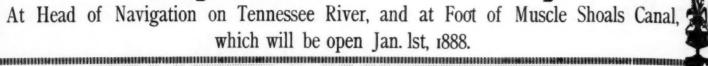
Manufacturers, Merchants and others desiring to locate in the best city in the South, where a solid and substantial growth is assured, are invited to visit Anniston or to write for pamphlets, &c., to the

Anniston City Land Co.,

Anniston, Alabama.

PLORENCE, ALA

County Seat of Lauderdale County.



SITUATED on a gently undulating Plateau, 200 feet above high-water mark, surrounded by three large creeks of pure free-stone water. It has a Court House, Two Colleges, Four Public Schools, Six Churches, beautiful wide streets, graded and graveled, and shaded with forest trees; Hotels, fine store houses, Masonic, Odd Fellows, K. of H. and L. of H. lodges. A population of 2,500—moral, social and hospitable.

- The Scenery on Every Side is Picturesque and Beautiful. -

SO MUCH SO THAT IT IS CALLED BY VISITORS

FAIR FLORENCE."

There is no Place on the Continent more Healthful and Salubrious.

MANUFACTURES.

Within the last six months numerous manufactures have been located here, among the number:

Five Large Blast Furnaces. One Rolling Mill, Three Planing Mills,

One Saw Mill,
One Flour Mill,
One Wooden-Ware Factory.

One Cotton Mill,
One Cotton Compress and Ice
Factory.

Two Brick Machines and Three Hand-Brick Yards. co

Of

wi

Ba

hot acc the La

ing

*

per

buil

stor

abo

furt

There are Vast Beds of Iron Ore within a few miles North and IMMENSE COAL FIELDS SOUTH

ACCESSIBLE BY RAILROADS NOW BEING RAPIDLY CONSTRUCTED.

By the 1st of January the Nashville & Florence Railroad will be completed, making three lines of railroad, and the river, thus opening up VAST AREAS OF TIMBER, IRON ORE, COAL, Marble, Limestone, Kaolin, Fire-Clay, and almost every kind of mineral and product.

THE LANDS IN THE SURROUNDING COUNTRY ARE FERTILE AND PRODUCTIVE.

All kinds of Grain, Grasses and Fruits grow to perfection. Springs and Water Courses are numerous, and grazing for Cattle is abundant for eight months of the year.

Pamphlets and maps furnished on application to

Florence Land, Mining & Manufacturing Company.

SHEFFIELD

COLBERT COUNTY, ALA.

The Iron Manufacturing Center of the South.

BEING at the head of navigation, and on the south bank of the Tennessee river, Sheffield is the natural outlet for the mineral and manufacturing products of Alabama and neighboring States seeking a water route to points on the Ohio and Mississippi rivers, and to the Gulf of Mexico, as well as the best distributing point over Alabama, Eastern Mississippi and East Tennessee, South Carolina, Georgia and Florida for Northern and Western produce, groceries, provisions, machinery, &c. Four railroads certain, and several others assured. Principal shops of Memphis & Charleston Railroad will be erected here pursuant to written contract. These will employ between four hundred and five hundred mechanics, and consequently, with their families, will make an increase in population of at least two thousand people. Shops of three other railroads are contracted to be located here.

Five Blast Furnaces Now Under Construction,

Of which one is nearly finished, and the remaining four contracted to completion next spring, have estimated capacity of 700 tons pig iron per day. This is 40 per cent. more than now manufactured at Birmingham, Alabama. Experts do not hesitate to say that iron can be manufactured more cheaply at Sheffield than at Birmingham, and its river transportation facilities will enable Sheffield iron to reach the principal markets at a saving of from

\$2.00 TO \$2.50 PER TON.

A first-class semi-weekly newspaper, printed by steam, is regularly issued. Furniture Factory, Bottling Works, Bakery, 8 Steam Brick Works, 2 Hand Brick Works, 2 Steam Wood-Working Establishments, Water Works, 2 Banks, a Savings Bank, and Steam Job Printing Office already in successful operation, and Iron Pipe Works, 15-ton Ice Machine and five-story hotel, with all modern appliances, will be erected. The Cleveland Hotel, Park House and numerous boarding houses furnish accommodations to travelers. Postoffice, Telegraph Office and Express Office already established. Contracts have been made for the early erection of Electric Light Works, Paint Works, Agricultural Implement and Machine Works and Cotton Compress. Large Stove Works, Machine Shops, additional Iron Blast Furnaces, an extensive Charcoal and Chemical Plant, a large Rolling Mill and other manufacturing establishments under consideration, and will probably be built shortly.

Good Water. Free Public Schools and Churches. Health and Climate Unsurpassed.

Drainage excellent. Splendid opening for men of push and energy. No "Old Fogy" element here.

No better point for profitable investment.

Sites for Manufacturing Enterprises,

And for Free Public Schools and Churches

Donated by Sheffield Land, Iron & Coal Company.

Population January 1st, 1887, 700; now, (August 21st, 1887,) by actual count, 2,583. Increase of population, 800 per cent. in eight months, and only limited by accommodations.

Three years ago the site of Sheffield was cultivated as corn and cotton plantations, and was without a railroad. Numerous two and three-story brick business houses, and one and two-story dwellings have been, and are being erected. The class of buildings will compare favorably with those in cities of 20,000 inhabitants.

LIMESTONE of excellent quality for fluxing iron in unlimited quantities at the furnaces' sites. First-class building stone and brick clay abundant. Rich and extensive deposits of brown hematite iron ore within twenty miles, along the lines of two Sheffield railroads. The Sheffield & Birmingham Railroad runs through the heart of the Warrior Coal Fields, which abound in first-class coking, steam, gas and grate coal. Timber is abundant and cheap.

The Memphis & Charleston Railroad and the Sheffield & Birmingham Railroad are now in operation into Sheffield.

The Memphis & Charleston Railroad and the Sheffield & Birmingham Railroad are now in operation into Sheffield. The Louisville & Nashville Railroad Co. is now extending its Nashville, Florence and Sheffield division, which will be completed to Sheffield before the close of the year 1887. Surveys of three other railroads have been recently completed to Sheffield, which will soon be the best combined river and railroad transportation center in the South.

Every merchant and every established manufacturing enterprise is doing a profitable business. More are needed. For further information address

Sheffield Land, Iron & Coal Co., - Sheffield, Ala.

r-

e,

ıd

s, e.

ee

skaloosa

HLABAMA'S RATURAL PITTSBURGH.

A Railroad & River Town of 6,000 Inhabitants, in the Coal, Iron & Timber District.

Coke and the Best Blacksmith Coal The Best Furnace

WERE AWARDED THIS CITY OVER ALL AND MANY COMPETITORS AT THE GREAT PIEDMONT EXPOSITION.

SCHOOL FACILITIES UNEQUALED BY ANY OTHER TOWN IN THE SOUTH. SALUBRIOUS CLIMATE. HEALTHFUL LOCATION.

TRUNK LINE.

Warrior Coal Field

AND ON THE WARRIOR RIVER.

Only Navigable River touching the

Alabama Mineral Field.

Bight Months Navigation. Being Surveyed now to be opened all the year round.

All Water Navigation to

MOBILE *

Entire Gulf and Atlantic Coasts.

TEE

-«Tuskaloosa Northern Railroad»

MINERAL AND TIMBER FIELDS.

THE-

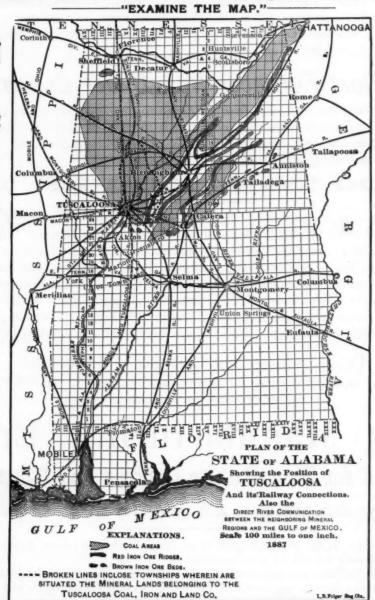
Macon & Tuskaloosa Railroad

Will soon be building into the

COTTON REGION OF MISSISSIPPI.

Fine Farming Region

Around and Below the City.



Superior Inducements

U

A Go

A Go

When ordered,

B. J. I Sur Hillo. Per Lar Cli Pie Hill. D. Eag

Clif Dr. The Eag Pri

+ ADVANTAGES + TO ALL

Manufactories Consuming

WOOD. IRON, COTTON.

FINE GOKING GOAL

In workable veins near city, fully tests

≪ The Fire Clay

Existing in inexhaustible quantities, has been practically tested and pronounced The Best yet Discovered in the South.

The Tuskaloosa Belt Railway

NOW IN OPERATION.

STEE TUSKALOOSA WATER WORKS + NOW BUILDING.

COTTON MILL

In Successful Operation.

LIARGE BRICK WORKS COTTON-SEED OIL MILL, &c.

Manufacturers Seeking Locations in the South have here

Many have availed themselves of it, but such is the wonderful richness of the resources of this section that there is

ROOM FOR

Coal, Tuskaloosa Iron

Owning 4,600 acres of city and suburban property, and 40,000 acres of mineral and timber lands, offers liberal inducements to manufacturers to locate at Tuskaloosa, Nature's City, and invites correspondence and the fullest investigation of its claims. An illustrated descriptive pamphlet sent free upon application to

President Tuskaloosa Coal, Iron & Land Co., TUSKALOUSA, ALA.

wheel

will pa

HC

GET • THE • BEST.

THE HERCULES

Are the Best Water Wheels ever made.

A Good Water Wheel Increases The Value of Your Whole Plant.

ct.

H.,

nta

ng

N.

AL

il.

ay

KS

15

09

Get the Best at First, and Avoid the Expense and Delay of Changing the Wheels.

A Good Wheel will serve you well for Twenty Years.

The Best is the Cheapest. It Does More Work, Lasts Longer, and Costs no more for Gears and Setting than a Common Wheel.

The Hercules Gives the Most Power tor its Size and the Highest Average Percentage from Full to One-half Gate of any Wheel



THE HERCULES WHEELS IN THE SOUTH.

Stas of
Wheel, Inches.
2-30
z-36
1-30
1-45
1-45
1-13
1-13
1-15
1-45
43
1-19
1-33
elr-30
1-36
1-60
1-00
1—36
1-30
2-48
1-51 ia. 1-12
1-30
3-49 ex9-36
9-36
30
1-36
Ga2-36
9-39
1-39
3-42
1-42
1-42

If you want to buy a new water wheel, if your old wheel does not give absolute satisfaction, if you would like to know just how perfect a water wheel can be made, or if you are in any way interested in water wheels, it will pay you to write for CATALOGUE NO. 3 to the

HOLYOKE MACHINE

WORCESTER, MASS.



CAPACITY. 30,000 to 40,000

Works in all kinds of clay and is a great saving in labor and expense.

WE contract to furnish complete Brick-Yard outfits-engines and everything needed, complete. Write for our bandsomely illustrated cata-

logue containing valuable information to brick makers

Estimates an lans furnishe Correspond-Address

FLETCHER & THOMAS. INDIANAPOLIS, INC

Mention this



An easy-working, quick-operating and powerful press. Will successfully press brick made on any Brick or Tile Machine.

The Wrought-Iron Tempering Wheel, The most thorough mud temperer known. Tempers faster, mixes better and runs lighter than any wheel

Barrows, Trucks, Molds, Klin Doors, &c.

W. RAYMOND & CO. DATTON, O.

Brick and Clay-Working Machinery,



Mention this paper and receive our elegantly illustrated Catalogues containing colored

J. W. PENFIELD & SON, WILLOUGHBY,
engravings of brick, tile, etc.



HOOPES & TOWNSEND,





KEYSTONE BOILER RIVETS,

Cold Punched, Chamfered, Trimmed and Drilled Square and Hexagon Nuts.

Finished and Case-Hardened Steel Hexagon Nuts. BRIDGE RODS and RIVETS.

uilders' IRON Work. TANK and COOPERS' RIVETS.

PHILADELPHIA, PA.



The Richmond Locomotive & Machine Works,





STEEL RAILS

PENNSYLVANIA

Standard Sections Light Sections Street Rails Fish Plates, Frogs, Switches

STEPHEN W. BALDWIN SALES AGENT

STEEL COMPANY

50 to 80 lbs. per yard 16 ,, 45 30 ,, 88 Bolts & Nuts, and Crossings.

> NO.2 WALL STREET NEW YORK N.Y.

16 lbs. Full Size.



* FIRE BRICK, * Standard Sewer Pipe

AND CULVERT PIPE.

Double Strength, with Improved Sockets.

CHATTANOOGA, TENN.



The STANDARD Steel Works.

Locomotive and Car Wheel TIRES.

OFFICE: 220 SOUTH FOURTH ST.

Manual Distriction of the unique time uniq

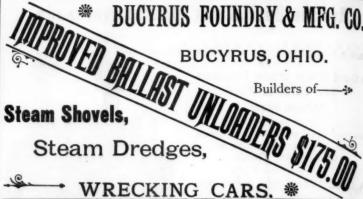
New

Wals

INC

Bit 8

Ş0



INCORPORATED. . PHILADELPHIA. PA.

Machine Tools For Working Iron No Steel.

Improved Turntables for Locomotives, Cars and Pivot Bridges.

High Speed Power Traveling Cranes, and Hand or Power Swing Cranes. Shafting, Pulleys, Hangers, &c., for transmission of power. Improved Self-Adjusting Injector of 1876. Self-Acting Injector of 1887. Fixed Nozzle Automatic Injector of 1885.

Injectors for all conditions of Locomotive and Stationary Service.



THE STEWART & MATTSON MFG. CO.

Railroad Car Trimmings @ General Brass Ship Work Car Bearings and Ingot Metal, Switch and Car Locks, Fine Brass Castings, Brass Special Screws and Boits, Car Trimmings Repaired, Repolished, Oxidized and Plated.

Office and Factory, Nos. 2042 to 2052 N. 10th St., PHILADELPHIA, PA.

Sparger's White Heat Steel Compound

FOR WELDING OR WORKING STEEL.

It is superior to borax or anything else, and much cheaper. Its chief ingredient is a natural deposit found near Bristol, Tenn. It will restore steel when burned, or it used properly, prevent any injury from over-heating. It is successfully used by some of the largest steel manufacturers in the country in reducing heavy ingots, &c. Price, & cents per pound by the barrel of 500 to 800 pounds, or 6 cents per pound by the keg of 100 pounds.

THE SPARGER STEEL COMPOUND CO., Chartered. Capital Stock \$100,000. BRISTOL, TENN.

W. A. SPARGER, Prest

E. W. KING, Treas.

H. H. HAYNES, Sec'y.

The Only Manufacturers of Rawhide Belting in the Country.

The Chicago Rawhide Mfg. Company,

RAWHIDE BELTING, LACE LEATHER,

ROPE, LARIATS, FLY-NETS, Picker Leather, Stock and Farm Whips, Washers, Hame Straps, Hame Strings, Halters and other Rawhide Goods of all kinds, by Krueger's Putent.

This Belting and Lace Leather is not affected by steam or dampness; has more grip than any other; never ecomes hard; is stronger, more durable and the most economical Belting made. Especially adapted for the outhern trade on account of fire resistance to moisture. The Rawhide Rope for Round Belting Transmission ecomes hard; is stronger, more durab outhern trade on account of its resista SUPERIOR TO ALL OTHERS.

73 & 75 Ohio Street, CHICAGO, ILL.

FCONOMY

AND WOOD.

Manufactories, Public and Private Buildings supplied with Heat and Power at half the cost of coal or wood, by means of a new apparatus for the perfect combustion of petroleum and other liquid fuels.

THIS APPARATUS IS NOW BEING USED FOR RUNNING STATIONARY AND MARINE BOILERS, RANGES, FURNACES, GLORY HOLES, LEARS, POT-TERY FURNACES, CHEMICAL STILLS, &c.



TRUSTEES:

Rrnest T. Fellowes, Prest. Andrew J. Constantine, V.P. Samuel D. Bussell, Treas. A. P. M. Roome. Edgar M. Crawford, James E. Miller, Seo'ty.

JAMES J. MURRAY & CO., MERIDIAN FLINT GLASS WORKS, facturers of Opal and Flint Globes and Shades of all Shapes for Gas, Kerosene and Electric Light Purposes.

EHYDRO-CARBON CO., 18 Exchange Pl., N. Y. City. MERIDIAN, CONN., Nov. 7, 1887. HAR STRS—We have been using your Seery Burner for the last two weeks, and it has given the satisfaction. From the present indications we believe it produces a great near the set with the of less oil than any burner we have heretofore used. You now have an order from us to two more in our two other glory holes, which we trust you will execute without delay.

Very truly yours, JAMES J. MURRAY & CO.

OFFICE OF THE CRYSTAL PALACE GLASS WORKS, BROOKLYN, N. Y.

past four years we have experimented with a great many burners for Glory Holes, found the "Seery Burner" to be the most satisfactory. Having been using four of ones for twelve months at our works with the best results, we can recommend it as omical and reliable.

THE E.P. GLESSON MFG. Co.

JAMES J. MURRAY & Co., MERIDIAN FLIST GLASS WORKS, urers of Opal and Filit Globes and Shades of all Shapes for Gas, Kerosene and Electric Light Purposes.

THE E.P. GLESSON MFG. Co.

JAMES J. MURRAY & Co., MERIDIAN FLIST GLASS WORKS, urers of Opal and Filit Globes and Shades of all Shapes for Gas, Kerosene and Electric Light Purposes.

Constanting A. Co.

Yours very truly.

No. 220 Lewis Striket, New York, October 22, 1207.

THE EMPIRE HYDRO-CARBON COMPANY, No. 18 Exchange Place, N. Y. City.

GENTLEMEN—We have been using one of your Hydro-Carbon Apparatus under one of opal single place, N. Y. City.

GENTLEMEN—We have been using one of your Hydro-Carbon Apparatus under one of opal single place, N. Y. City.

GENTLEMEN—We have been using one of your Hydro-Carbon Apparatus under one of opal single place, N. Y. City.

GENTLEMEN—We have been using one of your Hydro-Carbon Apparatus under one of opal single place, N. Y. City.

GENTLEMEN—We have been using one of your Hydro-Carbon Apparatus under one of opal single place, N. Y. City.

GENTLEMEN—We have been using one of your Hydro-Carbon Company.

THE EMPIRE HYDRO-CARBON COMPANY, No. 18 Exchange Place, N. Y. City.

GENTLEMEN—We have been using one of your Hydro-Carbon Company.

GENTLEMEN—We have been using one of your Hydro-Carbon Apparatus under one of opal size of the place, N. Y. City.

GENTLEMEN—We have been using one of your Hydro-Carbon Apparatus under one of opal size of the place, N. Y. City.

GENTLEMEN—We have been using one of your Hydro-Carbon Apparatus under one of opal size of the place, N. Y. City.

GENTLEMEN—We have been using one of your Hydro-Carbon Apparatus under one of opal size of the place, N. Y. City.

T

OFFICE OF THE EGLIPSE LUBRICATOR COMPANY,
Greenpoint Avenue and Newtown Crock,
BROOKLYS, September 14, 189
GRETLEMEN—We take pleasure in stating that the oil burner which you placed under
boiler gives us entire satisfaction, doing all that you claim for it, and we consider it a desuccess,
Yours, etc.,
KILLIPSE LUBRICATOR CO.—Chas. A. Mille

Office, 18 EXCHANGE PLACE, Factory at EAST 23d STREET,
Manufacture under s5 Letters Patent. Infringers will be por - - NEW YORK.
- NEW YORK.
- proceeded against according to law.

Established 1874. MANUFACTURERS OF

eel

ST.

CO.

ED.

PA.

ટી,

g.

ting

rk.

PA.

N.

R,

Taper Shank Drills, Straight Shank Drills, Blacksmith Drills, Bitstock Drills,

Straight Fluted Drills. Machine Bit Drills. Cleveland Twist Drill Co.



OFFICES- 24 and 26 WEST ST., Cleveland, O.

Write for Discounts

Self-feeding Reamers, Expanding Reamers, Shell Reamers,

Stav-bolt Tana.

Taper Reamers

New Process Twist Drill Co., MANUPACTURES OF Hot Forged Twist Drills The Of every description. Warranted to stand more than the



Walsh, Hoen & VonKapff, Agents, 31 S. Charles Street, Baltimore, Md.



CLARK'S PATENT

Double Cut COUNTERSINK

Makes the Smoothest Work.

Can be sharpened on the in-side of the edge.

Syracuse Twist Drill Co.

SYRACUSE, N.Y. AGENTS: A. Flagler & Co., 75 Reade St., N.V.; H. H. & C. L. Munger, 125 Lake St., Chicago.

The STANDARD TOOL CO.

-Cleveland, Ohio,-

INCREASE TWIST DRILLS, Etc., TAPER SHANK DRILLS,

Straight Shank Drills, EACHINE RIT DRILLS.

Bit Stock Drills,

SOCKETS,

Hand and Shell REAMERS, Standard Gauges, and Special Tools, MORSE TAPER REAMERS,

TWIST DRILL GRINDING MACHINE New York Office, 33 Chambers St.

TINYULCANIZED



Called the Standard, *

AS It is THE PACKING BY WHICH ALL OTHERS ARE COMPARED.

ccept no packing as JENKINS' PACKING stamped with our "Trade Mark,"

JENKINS BROS.

69 John St., N. Y. 105 Milk St., Boston. 18 S. Fourth St., Phila.



PREMIER FLOUR OF AMERICA.

Patapsco Flouring Mills.

ESTABLISHED 1774

OUR PATENT ROLLER FLOURS

Are manufactured from the OHOICEST WHEAT OBTAINABLE. Their superiority for UNIFORMITY, STRENGTH AND UNAPPROACHABLE FLAVOR has long been acknowledged. Our PATAPSCO SUPERLATIVE PATENT STANDS UNRIVALLED. Of a RICH CREAMY COLOR, it makes a Bread that will SUIT THE MOST FASTIDIOUS.

ASK YOUR GROCER POR

PATAPSCO SUPERLATIVE PATENT, CHESAPEAKE EXTRA,

PATAPSCO FAMILY PATENT, ORANGE GROVE EXTRA.

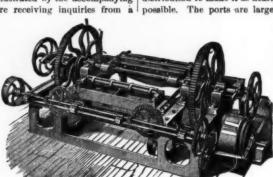
A. GAMBRILL MNFG CO.

Office. 214 Commerce St., Baltimore, Md.

New Uses for Veneer Machin-

The Du Quoin Iron Works, of Du Quoin, Ill., builders of veneer cutting machines, are finding quite an increased demand for this class of machinery, owing to their superiority for special purposes becoming more generally known, and also to the increased field that is being opened up for this class of product. One of the latest is cutting white pine into suitable shape for matches, the demand for this having come from across the waters. They have just shipped one to be used for this purpose, which is illustrated by the accompanying cut, and are receiving inquiries from a

and strength in excess of any reasonable duty. The valve is of the piston type, cast hollow, and as light as is consistent with strength, and is fitted with spring rings which travel in removable bushes, which can be replaced should occasion require without taking cylinder from frame. The piston is light and is fitted with self-adjusting packing. The cylinder is made from a close-grained iron, and great care is taken that it should be free from sandholes or other imperfections. It is very important that it should be strong and heavy, and the manufacturers have spared no metal, and use the best judgment in the distribution to make it as nearly perfect as possible. The ports are large, short and



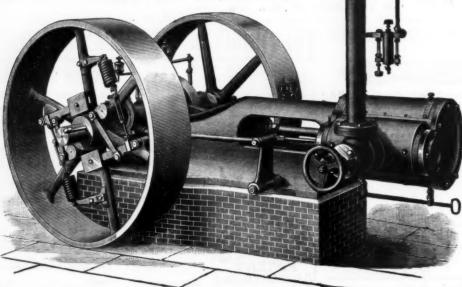
variety of manufacturers who are learning the advantages of this method of producing their lumber. The old plan of sawing from the log, with its attendant loss of timber, waste of time, extra cost of production and inferior result in quality, must give way as the advantages of cutting direct from the log becomes more thoroughly known. Those who are interested can secure any additional information desired by addressing the manufacturers.

A New Single Valve Automatic Engine.

The illustration which we herewith present is of an automatic engine recently brought out by the Morris Machine Works. of Baldwinsville, N. Y., which is designed for electric lighting purposes. These en-

direct, and are of sufficient proportions to admit of a high piston speed. The shaft is of the best hammered iron, forged solid and then slotted. Discs are placed on same, and held in place by set-screws, to aid in counterbalancing. All working parts are of steel and phosphor-bronze. All working The automatic governor is s mple in con struction; all parts are in sight and easily accessible for cleaning, and it is the most efficient governor made, as the variation in speed from no load to full power of engine is less than two per cent.

Although this engine has been on the market but a short time, the manufacturers have sold several, which are giving such satisfactory results that their orders are in excess of their present ability to fill them. Five sizes are made at present, ranging in power from 15 to 200 horse-power.



NEW SINGLE VALVE AUTOMATIC ENGINE.

gines are built from entirely new patterns, with the latest improvements. Special attention has been paid to making all parts plain, simple, strong and durable. All wearing surfaces are unusually large. The material throughout is the best, and they are well made, with the latest improved machinery, thereby securing accuracy and durability. The engines, as now made, are self-contained, having only two shaft bearings. The shafts are large and bearings long, giving both large area of bearings

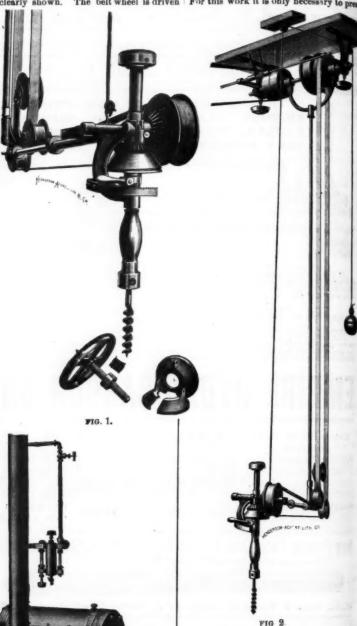
of Columbus, Ga., has fully perfected an automatic sprinkler, which does its work very thoroughly. It has recently been put to some very practical tests by the breaking out of fires in mills equipped with this sprinkler, and in every case it has proved fully up to the requirements. One cotton mill company in Georgia reports to Mr. Hill a reduction in the cost of insurance from

MR. JOHN HILL, the noted mill engineer, by a belt from counter shaft and about 8 idler pulleys, the upper pulley serving to keep the tension on the belt always the same, no matter in what direction the The machine is apparatus is moved. operated by means of two bevel gears, one of which is attached to the tool shaft, extending downward in the shape of a cone. Beneath this and attached to the tool shaft is a cone paper wheel which fits inside of \$2,800 a year to about \$700 since the introduction into their mill of the Hill sprinkler. | the cone attached to the cog wheel. This paper wheel, when the machine is not in

Universal Power Boring and Drilling Machine and Screw Driver.

Mr. M. C. Henley, of Richmond, Ind., is nutting on the market a universal power boring and drilling machine, which we illustrate on this page. The machine is designed for boring in wood work or light drilling in iron, and its arrangement is clearly shown. The belt wheel is driven

operation, drops down and does not com in contact with the cone attached to cog wheel until the small rachet lever is drawn around towards the right, which action forces the paper cone into the iron cone, immediately starting the tool shaft. These two wheels are at all times separated by means of a coil spring located above the tool shaft and in the tool frame, except when driving screws, boring or drilling. For this work it is only necessary to pr



on the cap, the rachet lever remaining in one position. The instant this press removed or the lever thrown back the wheels separate and the tool shaft ceases to revolve. The cap referred to, which is removable, may be taken off and a feet screw and nut put in its place, for which an enlargement at the top of the tool frame is provided. This enables the operator to use the machine for light drilling in irea, the change being made in a very short the change being made in a very short time. The frame is bored out sufficiently to permit of the feed screw moving up and down freely. A shield is designed to be made fast to the frame. and to cover the gears, providing an absolute safeguard against accident to clothing or fingers. The gears are all cut and run almost noise-lessly. All machines are fitted with an "Oneida" chuck which takes in drills or bits from 0 to \$\frac{1}{2}\$ of an inch in diameter. The apparatus is perfectly balanced, is as easily bits from 0 to \$\frac{a}{c}\$ of an inch in diameter. The apparatus is perfectly balanced, is as easily handled as a common brace and can be used for the most accurate work, running from 500 to 1,500 revolutions per minute, according to the work and size of bit used. It can be moved or operated at any angle or direction desired and is well adapted for a large variety of manufacturing establishments. The machines are at present made in two sizes, Nos. 1 and 2, the former having a capacity for boring a \$\frac{1}{2}\$ inch hole

Birmin has let co lon & R Birmin

Smoke C moke co The nam week as

erer k

with I

of the b per day Will op & Co. that a ro Annis

Boling o

Annis

een col

Annis

en awi

for Mr. (

Annis

parchase which to

Birming

mer Bot

their cap

of Beaufo dry and r chine Co Birmin that the Co., previ steel plan Birmin

Store & week as t we doubl Birmin; Me prepa

ing to cos large buil that a com rolling m City being

have bee Methodist mingham. 00,000 v give infor

**CONSTRUCTION DEPARTMENT.

E PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by reabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this desartment carefully each week.

to cog drawn action cone, These

ed by

except

ALABAMA.

Anniston—Brick Works,—The capacity of the brick works lately reported as started by H. Davis, of Lynchburg, Va., is 14 M per day. Machinery will be put in to increase the capacity to 20 or 25 M per day. Will operate under the firm name of Leak

Anniston—Rolling Mill.—It is rumored that a rolling mill will be moved from Penn givania to Anniston during the year.

Anniston — Planing Mill, — George W. Boling contemplates erecting a planing mill.

Anniston—Broom Factory.—A party has been considering starting a broom factory.

Anniston—Hotel,—Harwell & Son have been awarded the contract to build the hotel for Mr. Garner, previously reported.

Anniston—Cottages.—J. H. Clardy has purchased 16 lots in South Anniston on which to build cottages

Anniston—Cottages.—L. F. Hubbell, of Birmingham, has let contract for 7 cottages.

Bessemer—Bottling Works.—The Bessemer Bottling Works will probably increase their capacity.

Bessemer-Church.-The Episcopaleans here selected a site for their proposed church.

Bessemer—Factory.—The Sewell Patent Snoke Consumer & Manufacturing Co., lately mentioned as chartered, will, it is said, start a factory at Bessemer for manufacturing moke consumers and other articles.

Bessemer—Foundry and Machine Shop.— The name of the company reported last week as to be organized by C. Townsend, of Beanfort, S. C., and others to start a foundry and machine shop is the Bessemer Machine Co.

Birmingham—Steel Plant,—It is stated that the Henderson Steel & Manufacturing Ca, previously reported, will build a 100 ton steel plant at once.

Birmingham—Stove Works.—The Baxter Stove & Manufacturing Co., reported last week as to put in an additional cupola, &c., we doubling their capacity.

Birmingham—Building.—Bates & Beasley are preparing to erect a \$15 000 brick building

Birmingham — Building — Col. Jackson has let contract for a four-story brick building to cost \$20,000. He will erect another large building also.

Burningham—Rolling Mill,—It is stated that a company is being organized to build a miling mill at the four furnaces at Ensley City being erected by the Tennessee Coal, Ima & Railroad Co.

Birmingham — Institute. — Over \$40,000 hre been raised towards establishing a Methodist Female Institute at or near Birmingham. A building to cost probably \$100,000 will be erected. Rose Owens can pre information.

Birmingham—Fence Factory.—F. Brenernan, of Indianapolis, Ind.; E. Buice, Charles I. Juses and W. C. Cole, of Birmingham, herehartered the Alabama Grooved Picket Fence Co., to manufacture a picket fence. Their capital stock is \$15,000.

Birmingham — Building. — The Royster Provision Co. will receive bids for erecting a four-story brick building.

Birmingham—Street Railroad,—The Birmingham Union Street Railway Co. will make improvements to their tracks.

Birmingham—Tool Works.—The Binghamton Hoe & Tool Co., of Binghamton, N. Y., will move their plant to Birmingham and reorganize as the Birmingham Hardware Manufacturing Co. The capital stock will be \$100,000. Their plant will be, it is said, consolidated with the Birmingham Pin & Tack Factory.

Calera—Railroad.—It is reported that the Louisville & Nashville Railroad Co. (office, Louisville, Ky.) will build a branch road from Calera to Shelby Iron Works.

Camden-Cotton Factory.-There is talk of a cotton factory being erected.

Choctaw County—Timber Lands.—A party from Michigan has purchased 20 000 acres of timber lands.

Coalburg—Coal Mines and Coke Ovens,— The Sloss Iron & Steel Co. are preparing to double the output of their coal mines and the number of their coke ovens, previously reported.

Decatur—Water Works.—The Decatur Water Works Co., previously reported, are digging the pit for their pumping machinery, &c. A stand pipe 20x120 feet will be built,

Decatur—Steam Hoist, &c.—The Consolidated Coal & Iron Co. will erect a steam hoist, elevated track, &c., for handling coal in large quantities.

Decatur—Church.—The Southern Methodists will soon begin work on their church, previously reported. The cost will be probably \$25,000.

Decatur.—The Manchester Land & Improvement Co. has been organized to start a new town on the Tennessee river, with E. J. Oden as president; J. L. Stevens, Greencastle, Ind., vice-president; T. H. Eaton, Terre Haute, secretary and general manager, and W. M. Littlejohn, treasurer. The capital stock is \$1,000,000.

Decatur—Building.—J. N. Buchanan is preparing to erect a four-story brick building, 46 feet front.

Epes Station—Saw Mill,—A saw mill is reported to be built.

Fort Payne—Lime Works,—Parties from Quincy, Ill., have started lime works.

Gadsden—Cotton Warehouse,—J. J. Ramsey and George McAndrews, of Union Springs, previously reported as to build a cotton warehouse, have incorporated as the Etowah Warehouse & Compress Co. Their capital stock will be \$20,000. They have let the contract for the brick work to J. M. Chadwick.

Huntsville—Bridge—It is reported that the contract for building the bridge across the Tennessee river for the Huntsville & Birmingham Railroad has been let.

Huntsville-Brick Works,-T. C. Green, of Montgomery, will establish brick works.

Huntsville—Paint Factory.—O. F. Parsons, of New York, will establish a mineral paint factory.

Huntsville-Residence -S. S. Darwin is preparing to build a \$6,000 brick residence.

Jacksonville—Warehouse.—A company is being formed to build a cotton warehouse.

Jacksonville—Building.—P. Rowan will erect a two or three-story brick building, 32x80 feet.

Jacksonville—Hotel.—The Jacksonville
Mining & Manufacturing Co. contemplate
building a hotel to cost about \$65,000.

Jacksonville.—The Jacksonville Mining & Manufacturing Co. have purchased a tract of land adjoining their present property, and will probably soon begin developing their lands.

Jacksonville — Pottery Works. — Parties are negotiating with the Jacksonville Mining & Manufacturing Co. with a view to building large pottery works.

Jasper—Coal Mines.—The Sheffield & Birmingham Coal, Iron & Railroad Co. (office, Sheffield), reported last week as purchasing and to develop the Townley coal property, will build a short railroad to open up mines. A new town to be called Gambleville is to be started.

Jasper-Roundhouse and Machine Shop.— The Sheffield & Birmingham Coal, Iron & Railroad Co. (office, Sheffield) are, it is stated, preparing plans for a roundhouse and machine shop.

Montgomery—Fertilizer Works.—The report last week that the Alabama Fertilizer Co. will remove their works to Riverside is correct. They will increase their capacity.

Montgomery — Brewery. — Montgomery and other parties have formed a stock company to start the brewery in the building now occupied by the Alabama Fertilizer Co., reported last week.

Montgomery—Electric Light Machinery.

—The Adams Cotton Mills will, it is stated,
put in electric light machinery.

Ragland—Coal Mines.—The St. Clair Coal Co. will increase their output from 250 tons to 500 tons per day by August next.

Riverside—Hotel.—J. R. Coleman is preparing to build a \$20,000 hotel.

Seddon—Brick-yard.—A brick-yard is re-

Sheffield — Roundhouse and Machine Shops.—T. S. Mitchell is making surveys for the roundhouse to be built by the Sheffield & Birmingham Coal, Iron & Railroad Co. A machine shop will be built also.

Sheffield—Buildings.—Beagle & Baldwin will erect buildings to cost \$7,000.

Sheffield—Ice Factory.—The Sheffield Ice Co. have let the contract for the erection of their factory, previously reported, to the Sheffield Manufacturing Co.

Stanton—Brick-yard,—A brick-yard has been started. Edward G. Gregory can give information.

Talladega—Hall.—The Masons will, it is stated, erect a two-story brick hall.

Trussville—Steel.—It is stated that the Birmingham Furnace & Manufacturing Co. have purchased the right to manufacture steel by the Henderson process, controlled by the Henderson Steel & Manufacturing Co., of Birmingham.

Trussville—Railroad.—A project to build a mineral railroad from Gate City to Trussville is being worked up.

Tuskaloosa — Proposals for preparation for and construction of Lock No. 1, and the excavation of channel below in the Black Warrior river will be received until April 23 by A. M. Damrell, Mobile, Ala.

Warrior Station.—Water Works are reported to be built. If true R. H. Pearson can probably give information.

ARKANNAS.

Batesville—Water Works and Electric Light Plant.—The Batesville Water & Electric Light Co., capital stock \$25,000, has been organised to build the water works and the electric light plant previously reported. John F. Allen is president.

Conway—Wagon Factory.—E. R. Ressler and others are working up a company to start a wagon factory. The capital stock will be about \$10,000,

Harrisburg—Stave Factory, &c.—Kennedys & Morelock are building their stave and heading factory as previously reported, and expect to add stave buckers and spoke machinery in the near future.

Helena—Incline, &c.—The Louisville, New Orleans & Texas Railroad Co. (office, Memphis, Tenn.) will build an incline and transfer this summer.

Little Rock—Electric Light Plant,—The Board of Public Works contemplate erecting an electric plant to light the city, and are receiving bids. The capacity is to be 90 arc lights of 2,000 candle-power each, \$27,000 have been appropriated for the plant by the council.

Little Rock—Mining.—S. H. Whitthorne has been making efforts to organize a stock company to develop a nickel mine.

Little Rock—Buildings.—Gans Bros. will erect a large brick building 140 feet front. Plans have been prepared. Wolff Bros. will erect a large brick building.

Little Rock—Dummy Railroad.—Henry Ritchie has received the contract to build 1 1/4 miles of dummy railroad.

Little Rock—Timber lands.—Roos & Wainwright, of Malvern, Iowa, contemplate purchasing about 20,000 acres of timber lands in Arkansas.

Little Rock—Roundhouse and Machine Shopa.—The Little Rock & Alexander Railroad Co. have purchased a site to build a roundhouse and machine shops.

Pine Bluff.—Cotton Mill.—The building of a cotton mill is still being agitated.

Searcy—College.—Proposals for building the college for the Methodists, lately reported, will be received until April 15 by E. M. Pipkin. The estimated cost is from \$20,000 to \$25,000.

West Fork—Canning and Evaporating Factory—Jacob Yoes, Thomas Walker, J. F. Collyer and others have incorporated the West Fork Canning & Evaporating Co. The authorized capital stock is \$50,000.

FLORIDA.

Altoona—Cigar Factory.—A cigar factory has been started.

Belleview—Rice Mill and Axe Handle Factory.—The Belleview Steam Power Co, has been organized to rebuild the rice and grist mill of Ira S. Keeler and the axe handle factory of E. E. Converse, reported last week as burned.

Enterprise—Hotel,—There are prospects of a four-story hotel being built.

Florida—Timber Lands.—E. C. Austin, of Farwell, Mich., has purchased 20,000 acres of timber lands and will develop.

Green Cove Springs—Saw Mill.—A saw mill will be erected soon by Alfred Bros.

Green Cove Springs-Hotel,—It is rumored that John G. Bordon and H. M. Flagler, of New York, will build a large hotel.

Jacksonville—Building.—Mr. Hazeltine will rebuild his large building lately burned, and probably on an enlarged scale.

Jacksonville—Railroad.—The Jacksonville & St. Augustine Air Line Railroad Co. has been chartered, with David Grauman, D. N. Trumpeller and N. F. Sylvester, of Jacksonville, and others as directors. Surveys will probably soon be made.

Kissimmee—Water Works.—The Kissimmee Water Co., capital stock \$40,000, has been organized with Charles Swayne as president; John King, secretary, and J. M. Bowling, treasurer.

Kissimmee—Electric Light Plant.—C. F. Sugg, J. M. Bowling, John King and Charles Swayne have incorporated the South Florida Electric Light, Power & Motor Co. to erect

gin

the es to

hich

ame

or to

roa, bort

atly and o be the tard pers. oise-

an electric light plant. The capital stock is \$20,000.

Key West—Electric Light Plant.—The Key West Gas Co. are making arrangements to put in an electric light plant, previously reported.

Lake City—Cigar Factories.—It is rumored that one or two cigar factories will be stated.

A. Finley can probably give information if true.

Lake City-Opera House.-An opera house will be built by Mr. Henderson.

Monticello — Furniture Factory. — John Henry is erecting a building to manufacture furniture.

Mt. Dora—Hotel.—Efforts are being made to have a hotel erected.

Orange Bluff—Timber Lands.—Lewis A. Davis & Bro. have purchased 3,500 acres of timber lands. They will probably build mills to develop.

Orlando—Sewerage System.—A proposition will be made to build a sewerage system to cost \$5,000. The mayor can give information if anything is done.

St. Andrew's Bay—Saw Mill.—Mr. Erkenbrack contemplates erecting a saw mill and has been looking for a site.

St. Augustine—Hotel.—It is rumored that parties are negotiating for the land of D. Dunham and others with a view to building a large hotel.

St. Augustine—Hotel.—A 100-room hotel is reported to be built.

St. Lucie—Railroad.—The Atlantic & Gulf Railroad & Steamboat Co. are having preliminary surveys made with a view to building a railroad to Kissimmee or Orlando.

Tallahassee — Water Works, — Water works are talked of.

Tampa—Jail.—The time for receiving bids for building the jail reported last week has been extended until May 1 by the county commissioners. Said proposals will be received in the following manner, viz: 1st. Proposals for the building complete. 2d. Proposals for the iron work, viz: cells, doors and window gratings. 3d. Proposals for the building complete, exclusive of the abovementioned iron work.

Tampa—Exposition.—It is proposed to establish a tropical exposition at a cost of \$100,000. The secretary Board of Trade can give information.

Tampa—Hotel.—A \$50,000 hotel is reported to be built at once. The secretary Board of Trade can probably give information.

GEORGIA.

Acworth—Hotel.—A stock company is being worked up to build a hotel to cost from \$25,000 to \$40,000. A. T. Simons is interested and can give information.

Alaculsy—Gold Mine.—The gold mine lately mentioned is being developed by F. S. Winkley for Walker Bros., of Columbus, Ga.

Americus—Matting Factory,—C. A. Bell contemplates starting in the summer the straw matting factory reported last week.

Athens—Cotton Factory.—The Georgia Manufacturing Co., lately reported as to build an additional factory, have let the contract for a three-story building, 150 feet long, to McGinty & Hunnicutt.

Athens—Cotton Factory.—It is rumored that a company is being formed to build a large cotton factory at some point on the Oconee river.

Atlanta—Church.—A new building is to be erected for Payne's Chapel congregation. E. T. Payne can give particulars.

Atlanta—Machine Works.—The June Manufacturing Co.. of Belvidere, Ill., contemplate moving their machine works to Atlanta, and are making investigations.

Augusta—Cotton Factory.—The John P. King Manufacturing Co. will add about 8,000 spindles to their cotton mill. They now have 29,344 spindles,

Augusta — Cotton Mill.—Frank Clark, Clarence Clark and others have chartered the Warwick Cotton Mills to operate the Shamrock Cotton Mills. They will add machinery for the manufacture of cloths. Their capital stock is \$25,000, which will be increased to \$100,000.

Augusta—Wood-working Factory.—The Georgia Railroad & Banking Co. will erect a wood-working factory, two stories, 90x120 feet, at their machine shops. Will put in new machinery.

Augusta—Building.—The Young Men's Christian Association have purchased a site 68x132 feet, corner Greene and Campbell streets to erect their building previously reported.

Augusta—Electric Light Plant.—The Augusta Factory (cotton), reported last week, will put in an electric light plant during the summer. The cost will be about \$10,000.

Bluffton—Saw Mill.—Messrs. Killebrew and J. D. Lee have purchased machinery to erect a saw mill.

Brunswick.—The Brunswick Storage & Export Co., capital stock \$100,000, has been chartered by Henry Lang and H. P. Clark, of New York, and J. S. Coles and J. S. Thomas, of Brunswick.

Brunswick—Cotton Compress —The name of the company reported last week as to be chartered to erect a cotton compress, operate warehouses, etc., is the Pioneer Compress & Warehouse Co. The capital stock is \$100,000. The corporators are J. S. Coles, J S. Thomas and others. Their compress is now being made.

Calhoun—Wagon Factory.—M. E. Ellis, whose wagon factory is reported in this issue as wrecked by a storm, will rebuild on a larger scale.

Camilla—Feed Mill.—W. H. Brumberry, Jr., has added a feed mill to his corn mill.

Canton—Saw Mill.—David Hamby will move his saw mill to a point 4 miles from Canton.

Canton—Furniture Factory,—A furniture and coffin factory will be started 4 miles from Canton by McAfee & Tolbert.

Cedartown—Reservoir.—Pace & Herbert will build a reservoir, and have secured a site.

Concord—Church.—The Methodists are negotiating for a site to build a church.

Columbus—Railroad.—The Savannah & Columbus Railroad Co. will be chartered to build a railroad from the Central Railroad & Banking Railroad Co's road to Columbus, with a branch to the Alabama State line in Quitman county. Principal office is to be at Savannah.

Columbus—School.—The contract to erect the brick school building previously reported has been let to Thomas W. Smith at \$21,600.

Cresswell—Spoke and Handle Factory.— J. T. & G. W. Moore, previously reported as erecting a saw mill, are thinking of adding a spoke and handle factory.

Davisboro—Artesion Well.—L. B. Clay, of Barton, has received contract to sink an artesian well.

De Soto—Saw Mill.—Oliver Hays has purchased a saw mill, and will develop 2,000 acres of timber land.

Emerson (P. O. Stegall).—Brick Works.— Charles Adams and others will incorporate a stock company to manufacture fire-bricks.

Fairburn—Guano Factory.—A company is being formed to start a guano factory by E. B. Chapman,

Grady—Iron Mining.—D. Green will mine iron ore.

Grady—Ore Washers.—The Cherokee Iron Co., of Cedartown, will erect ore washing machinery.

Harmony Grove—School,—Bonds will be issued to build an \$8,000 school.

Jug Tavern—Grading.—Hillman Jackson has contracted to grade part of the Macon & Covington Railroad, and will commence work at once.

La Grange—Cotton Mill.—It is stated that the La Grange Oil & Manufacturing Co, will increase their capital stock to build a cotton factory. If correct the factory is probably the same as the one referred to last week.

Lawrenceville—Jail.—The Pauley Jail Building & Manufacturing Co., of St. Louis, Mo., has been awarded the contract to build the jail previously reported at \$12.300.

Lumber City—Barrel Factory.—The Georgia Cooperage Co., of Savannah, have started the barrel factory reported last week. The daily capacity is 150 barrels.

Macon—Courthouse and Postoffice.— Proposals for the interior finish, including plumbing and gas fitting, of the United States courthouse and postoffice building will be received until April 11 by Will A. Freret, Washington, D. C.

Macon.—E. Daniels, J. M. Jones, D. G. Smith and others have chartered the Georgia Improvement & Manufacturing Co., capital stock \$10,000.

Milledgeville—Cotton Compress.—Atlanta parties have made a proposition to erect a cotton compress. W. T. Forbes, Atlanta, can probably give information.

Madison—Hotel,—J. H. Holland is reported as negotiating with Northern parties who contemplate building a hotel.

Murray County—Gold and Tin Mine.— Mr. Dean, of Virginia, has purchased the De Soto gold and silver mine.

Newnan—Fertilizer Works.—The 100-ton fertilizer works referred to last week are reported to be erected and in operation by October or November.

Orchard Hill—Cotton Mill.—It is stated that the Orchard Hill Manufacturing Co. has been organized, with J. D. Cunningham as president, to build a cotton mill.

Rome—Furniture Factory.—The Etowah Furniture Manufacturing Co. have increased their capital stock, and will probably increase the capacity of their factory.

Rome—Rolling Mill.—Negotiations are pending for the erection of the rolling mill previously reported. If anything is done the Rome Land Co. can probably give information.

Rome—Carriage Factory.—It is stated that Chattanooga (Tenn.) parties contemplate building a large carriage factory. If anything is done the Rome Land Co. can probably give information.

Rome—Stove Foundry.—It is reported that a party contemplates building a large stove foundry.

Rome—Union Depot.—There is talk of a union depot being built.

Savannah—Building,—W. F. Chaplin has contracted to erect a three-story building, 60x90 feet, for the Union Society. He will commence work at once,

Savannah—Cotton Mill.—John Flannery has purchased the Arkwright Cotton Mill and will put it in operation. It will be known hereafter as the Savannah Cotton Mills.

Somerville—Grading.—McLaughlin Bros. have commenced work on their contract to grade 10 miles of the Chattanooga, Rome & Carrolton Railroad.

Tallapoosa—Iron Mines.—The Georgia Ore & Furnace Co., lately mentioned as chartered, have purchased the Crow iron ore bank at Allatoona, in Bartow county, and will put in machinery at once to develop. Will build a tram road to the Western & Atlantic Railroad, 13/2 miles.

Waynesboro—Church.—The Methodists will build a church.

HENTUCKY.

Covington—T. Heineman and others have chartered the General Building Association No. 3 Permanent. Frankfort.—Bills have been introduced in the legislature to incorporate the People's Lighting & Fuel Co.; the Shannon & Lowell Turnpike Road Co; the Butler & Boston Turnpike Road Co.; the Michigan Lumber Co. (Louisville); the Hodgenville & Glasgow Railroad Co.; the Arm & Hammer Mining Co; the Citizens' Gas Co. (Paducah); the Cloverport Mining & Improvement Co; the Madisonville & Central City Railway Co.; the Doe Run Natural Gas & Manufacturing Co., and the West Point Natural Gas Co.

Henderson—J. N. Perkins and other have organized a building and loan asseriation.

Henderson—Railroad.—It is stated that the Henderson, Hartford & Knoxville Rail. road Co. contemplate beginning work of their railroad soon. It is to extend from Henderson to some point in East Tennessee.

Louisville—Lumber, &c.—The Tennessee River Land & Lumber Co., capital stack \$50,000, has been incorporated to manufacture lumber, &c., by J. T. Frazier, Herbert Thomas, Walter Irwin, Walter N. Escott and William J. Adams.

Louisville—Publishing.—Angus R. Allmond, Harry Wirgman, George G. Fetter and Archie Johnson and others have chartered the Tobacco World Publishing Co., capital stock, \$20,000.

Newport-Iron Furnace.—The Newport Iron & Steel Co. are remodeling their iron furnace.

Newport.—S. Casparis, Clinton Crane and others have chartered the Huston Comba Transportation Co., capital stock, \$3,000

Paducah—Machine Shops.—The Chespeake & Ohio Railroad Co. (office, Louiville,) will enlarge their machine shops.

Pineville—Railroad.—B. P. Reed, J. S. Ray and J. D. Reed, of Louisville, and others have formed a company to build a railroad from Pineville to the Big Sandy river, and from Pineville to the Tennessee State line.

Sharon Grove—Coal Mines.—The Share Mining Co. are developing coal mines in Todd county.

Versailles—Railroad,—A subscription of \$50,000 has been voted to the Lawrenceburg, Versailles & Lexington Railroad.

LOUISIANA.

Abbeville — Courthouse — Proposals for building a brick courthouse with fire-proof vaults, etc., will be received until April 35 by W. W. Edwards. The estimated cost is \$22,000.

New Orleans—Canning Factory, &c.— Bryan & Myler are erecting a two-stery building, 75x126 feet, on Delta street, sai will start the canning of syrup and molasse; also the boiling of rock salt.

New Orleans—Cigar Factory.—The Paent Cigar & Union Protective Manufacturing Co., previously reported, have pat their factory in operation. More than shy hands are employed.

New Orleans—Pottery.—The New Orleans Art Pottery Co. will hold a meeting on May 8 to consider increasing their capital stock.

Shreveport—Hotel.—Peter Youree is preparing to build a large hotel, previously reported.

MARYLAND.

Annapolis.—Bills have been introduced in the legislature to incorporate the Maryland Gas Light & Fuel Co., capital stock \$2,000-000, to build works at Baltimore, with Robert Rennert, James Bujac and others as incorporators, and the Hagerstown Chy Passenger Railway Co.

Baltimore—Street Railroad.—The Northwest Passenger Railway Co, have asked for permit to build a street railroad. James W. Flack is interested in the company.

Baltimore—Warehouse,—P. B. Sadder will build a three-story brick warehouse & Lexington street near Howard. Place; building and 4 two-ster Mary A ings or four-ste street, brick b

stor Lan

B

Wor

mitte

ing a

Ba

tic F

Harr

secre

Ba

Son.

and e

their

Bal

house

Jacob

Place,

Gold s

Willia

buildir

Caton
soon beg
reported
wards.
informat
Drum
Works

purchas

Camb

an artes

Ellico Gunbrill their flou Washi Cochrane

\$9,000 Washin & Fletche stone bui Washin Glover w

on G st \$18,000. Washin Sawyer w arenne, T to cost \$1: Washin Dunn wi

Dean wi street to hower, 5 le to cost \$ three-story Hampshir Headerson street N. Baltimore—Warehouse.—A. Booth & Co., opster and fruit packers, will erect a twoday brick warehouse corner Wolf and Lancaster streets.

Baltimore—Schools.—\$25,000 have been appropriated to purchase a site and erect a school in the northwestern part of the city, and \$50,000 to build a school at or near Broadway and Bank streets.

Baltimore—Coffee Polishing.—The Baltimore Coffee Polishing Co., capital stock \$2,000, has been chartered by Theodore G. Larman and others,

Baltimore—Gas and Electric Light Works.—The mayor will appoint a comsittee to inquire as to the cost of establishing and maintaining gas and electric light works.

Baltimore—Fibre Machine.—The Atlantic Fibre Machine Co., capital stock \$100,-600, has been organized with Charles K. Harrison as president, and W. T. Morgan, scretary and treasurer.

Baltimore—Marble Works.—M. Gault & Son, reported last week as to put in boilers and engines, are moving their marble and freestone yard and mill to the lot adjoining their granite yard.

Baltimore — Buildings. — Charles L. & James S. Clark will build 13 two-story houses on Hillman street, near Hoffman; omas E. Mason, 4 two-story houses on Chapel street, near Monument; Siddon & Ca. 12 two-story houses on Fort avenue; Jacob Gerwig, 5 three-story houses on Eutaw Place, near Presstman street; Jesse Crockett, 9 two-story houses on Bouldin alley, 6 on Gold street and 12 on Pennsylvania avenue William A. Stewart, 3 three-story brick buildings on Eastern avenue; A. A. Rinehart, 5 three-story buildings on Eutaw Place: Paca & Tucker will erect 5 two-story buildings on Etting street, 12 on Gold street and 4 on Division street; S. A. Webb, 12 ee-story brick buildings on Smith street; Mary A Mumma, 2 two-story brick buildings on McKim street; Mary Schaum, a four-story brick building at 225 Lexington treet, and Michael J. Dorsey, 6 two story brick buildings an Sassafras street.

Cambridge—Building.—J. B. Brown has purchased a site to erect a large building.

Cambridge—Well —Mr. Dietrich will sink an artesian well.

Catonsville—Church.—The Catholics will som begin work on their church previously reported. They will add a school afterwards. Joseph M. Cone can probably give information.

Drum Point (P. O. Solomons). — Brick Works — Brick works are projected. If anything is done Alexander De Barril, of Baltimore, can give information.

Ellicott City—Flour Mill.—The C. A Gunbrill Manufacturing Co. are repairing their flour mil'.

Washington, D. C - Warehouse.-H D. Cochrane will build a brick warehouse at 1317 Fourteenth street, northwest, to cost same

Washington, D. C.—Buildings.—Singleton & Fletcher will erect a four-story brick and wone building at 641 D street.

Washington, D. C.—Building.—C. C. Glover will erect a four story office building as G street, with marble front, to cost \$15,000.

Washington, D. C.—Residence.—Senator Sawyer will build a residence at Connecticut senne, Twentieth and R streets northwest to cost \$10,000.

Washington, D. C.—Buildings.—E. W. Dan will erect 5 dwellings on Seventh street to cost \$8,000; Washington Danenhower, 5 brick dwellings on C street N. E., b cost \$15,000; Charles E. De Valin, a three-story brick dwelling at 1306 New Hampshire avenue to cost \$15,000, and John Henderson a \$4,000 brick dwelling on R Breat N. W.

WINSISSIPPI.

Adam's Station—Box Factory.—A box factory will be started by T. C. Biggs.

Corinth—Gin Factory.—B. A. Smith, of Rutherford, Tenn., is considering moving his gin factory to Corinth.

Jackson—Cotton Factory.—Efforts are being made to secure the erection of a cotton factory.

Jackson—Sash and Blind Factory.—There are prospec's of a sash and blind factory being started.

Jackson—Water Works.—The city contemplates building water works, and bids will be received until April 25 by the mayor.

Macon-Warehouse.-Mr. Gary, of Meridian, is thinking of building a cotton warehouse.

Meridian—Railroad.—The Warrior Coal Field Railroad Co. and the Pensacola & Memphis Railroad Co. have consolidated.

Tupelo—Furniture Factory.—There is talk of starting a furniture factory.

Vicksburg—Medicine Factory.—C. C. Reynolds and others have incorporated the C. C. Reynolds Drug Co., to sell and manufacture drugs and medicines.

Vicksburg—Oil Mill.—The Vicksburg Cotton-seed Oil Co., previously reported, have organized with Charles Mulholland as president. Their plant will be in operation by September 1.

Vicksburg—Saw Mill.—M. Reed, representing Kentucky parties, is prospecting in Mississippi for a site to erect a large saw mill.

West Point — Canning Factory. — The West Point Co-operative Trade & Manufacturing Association has been organized by J. S. Carothers and others. They will start a canning factory at present, and want to purchase machinery.

West Point,—The Coleman Carley Engineering & Construction Co. has been organized by W. O. Coleman and others.

West Point,—The West Point Building and Loan Association has been organized, by J. H. Brinker and others,

Yazoo City-Ice Factory.-Kaye & Son have nearly completed their ice factory.

Yazoo City—Timber Lands—The Yazoo Delta Land & Lumber Co, previously reported as organized, are negotiating for about 11,000 acres more of timber lands.

NORTH CAROLINA

Asheville — Brick yard — Isidor Wallach, reported last week as purchasing an old brick-yard and to add machinery for making pressed brick, will put in other machinery; wants to purchase brick machine with daily capacity of 20,000 stiff brick, engine and boiler, 15 to 20 horse-power, and pressed brick machine.

Asheville — Canning Factory.— A company has been formed to start a canning factory.

Ash ville—Furniture Factory.—Avery & Erwin will enlarge their furniture factory by a two-story addition, 50x100 feet, to be used for finishing and storage purposes.

Asheville—Ice Factory—H. F. Collins & Co. contemplate remodeling and enlarging their ice factory.

Big Falls.—The Big Falls Cotton Mills previously reported, are nearly completed. The manufacture of yarns has been started.

Burga w—Canning Factory —R. F.Sanders and others contemplate starting a canning factory and are making investigations as to cost of machinery. &c.

Carthage—Turpentine Distilleries—Several turpentine distilleries are reported to be started.

Charlotte—Buildings.—Albury & Finger have contracted to erect 2 three story brick buildings, 29x35 feet, for A. D. Davidson and others.

Charlotte—Cotton Mill.—The Charlotte Cotton Mills will put in additional machinery and have let the contract for enlarging their building to Josiah Asbury. Coinjock—Tram Road.—John P. Roper & Co. have purchased timber at the Great swamp and are building a tram road.

Durham—Tobacco Factory.—W. Duke, Sons & Co, previously reported as to enlarge their tobacco factory, have let the contract for a four-story addition, 160 feet long, to C. A. Norton.

Egypt—Coal Mines.—The Egypt Coal Co., reported last week as to develop coal mines, have organized with Samuel H. Henszey as president; A. H. Leftwich, of Fayetteville, vice president, and Daniel W. Slack, secretary. They propose to begin work at once.

Fayetteville—Silk Factory.—Mr. Morgan, previously reported as building a cotton factory, is considering establishing a silk factory instead.

Fines Creek-Saw Mill.-J. H. Noland contemplates erecting a circular saw mill.

Forest City—Cotton Mill.—The Forest City Cotton Mill Co., previously reported, are contracting for materials for their factory building and will commence work as soon as weather will permit.

Goldsboro—Cotton Mill.—It is stated that plans are in progress for securing a \$400,000 cotton mill for Goldsboro.

Goldsboro—Water Works.—The parties previously mentioned as contracting to build water works have failed to come to time, and new proposals for building works are invited until April 25 by N. O'Berry.

Henderson—Tobacco Factory.—A smoking tobacco factory is reported to be started soon.

Henrietta—Cotton Mill.—The Henrietta
Mills will put the additional machinery
(6,000 spindles) in their cotton mill, previously reported, at once, and will also put
in about 1,000 twisters.

Hickory-Saw Mill.-A. Y. Sigmon will erect another saw mill near Hickory.

Laurinburg—Foundry.—A stock company is being organized to start the iron foundry reported last week. A. F. Buzzell can give information.

Lincolnton—Paper Mill.—William & R. Tiddy have completed their new wood pulp mill previously reported. They have increased the capacity of their paper mill to 4 tons daily.

Lincolnton.—Cotton Mill.—The capital stock of the Willow Brook Manufacturing Co., lately reported as starting a 1,000 spindle cotton mill, is \$50,000.

Monbo—Cotton Mill.—James Brown, of Merchantville, N. J., has purchased the Long Island Cotton Mill near Monbo from the Monbo Manufacturing Co. He will add knitting michinery and about 500 new spindles, and erect lapper-house and dye-house.

Oxford—Sash, Door and Blind Factory and Brick-yard.—J. C. & G. K. Hundley will erect a sash, door and blind factory and start a brick-yard.

Raleigh—Building.—Proposals for erecting the main building for the North Carolina College of Agriculture and Mechanic Arts will be received until April 12 by the Board of Trustees. The extreme length is to be 170 feet and greatest width 60 feet.

Raleigh—Wood-working Factory.—Canada parties are looking for a site to build a wood-working factory at some point in North Carolina. J. T. Patrick can give information.

Raleigh—Ice Factory.—The Raleigh Ice Factory have put in a new and larger engine.

Repose—Turpentine Distillery.—R. Jones and R. McGowan have started a turpentine distillery.

Salisbury — Machine Shop, — James B. Lanier is preparing to double the capacity of his machine shop.

Salisbury—Houses.—The Salisbury Cotton Mills will build 30 tenement houses, and will receive bids for erecting the houses, also their factory building until April 2. Shiloh—Oil Mill.—The Farmers' Cooperative Manufacturing Co. have contracted for machinery for their cotton-seed oil mill, previously reported. The capacity will be 30 tons.

Statesville—Cotton Mill.—The Statesville Cotton Mills have purchased a site for their mill previously reported. C. R. Makepeace & Co., of Providence, R. I., are preparing plans for the buildings.

Steele Creek—Church.—H. J. Norris has been awarded the contract to build the Steele Creek church lately reported.

Weaveraville-Woolen Mill.-Machinery will not be added to the Reems Creek Woolen Mill, as stated last week.

Welch—Saw Mill.—W. W. Hampton and D. D. Freeborn will erect a saw mill near Welch.

Wilkesboro.—Canning Factory.—D. M. Smoak will, it is stated, start a fruit canning factory.

Wilmington—Bridge.—The Cape Fear & Yadkin Valley Railroad Co (office. Fayette-ville), lately reported as to extend their road from Fayetteville to Wilmington, will build a bridge across the Black river near Wilmington.

SOUTH CAROLINA.

Beaufort—Phosphate Mining.—The Port Royal Mining Co., capital stock \$10,000, has been chartered to mine phosphate.

Charleston—Hall.—The Charleston Turnverein have purchased a site to build a new hall, and will shortly let the contract.

Columbia — Phosphate Mining. — The Farmers' Mining Co., lately mentioned as being incorporated, is not a new company, but an extension of the charter of the Farmers' Phosphate Co.

Columbia—Saw Mill.—The Piedmont Land Improvement & Investment Co., lately reported, have organised with C. J. Iredell as president. They have purchased a site to erect their saw mill.

Enoree—Cotton Factory.—The Enoree Manufacturing Co. will shortly begin manufacturing brick for their cotton factory, previously reported.

Georgetown—Cotton Compress,—It is rumored that negotiations are being made for the erection of a cotton compress,

Greenville—Cotton Mill.—George H. Mc-Fadden & Co., of Philadelphia, Pa., are negotiating to erect a cotton mill—they to put in machinery (now in Philadelphia), owned by them, and a certain amount of stock to be taken by Greenville parties. If anything is done, T. B. Hayne, Greenville, can give information.

Greenville—Grist Mill.—R. E. Allen & Bro. will build at once a grist mill with a daily capacity of 150 or 200 bushels per day.

Spartanburg—Cotton Factory—A company is being worked up to build a cotton mill in Spartanburg. Charles Petty can give information.

Winnsboro-Water Works.-Water works are being agitated.

TENNESSEE.

Alexandria—Flour Mill.—The Alexandria Roller Mill Co. are building the flour mill lately mentioned. Will have roller machinery.

Athens-Church.-The Baptists will build a church.

Bristol---Iron Foundry.---It is stated that Reynolds & Baker will enlarge their iron foundry.

Bristol—Car Works,—L. R. Neil will receive bids for the erection of the buildings for the car works previously reported as to be started.

Brownsville — Canning Factory, — The Brownsville Canning & Manufacturing Co. has been chartered to start a canning factory. Dorsey O. Thomas can give information.

Cedar Hill.—Flour Mill.—The Cedar Hill Mill Co., capital stock \$12,000, has been or-

XUM.

ced in nople's Lowell Boston amber langow fining

i); the o; the iy Co; turing Co.

others associd that Railork on I from

Teamessre stock anafac-Ierbent Escott

Fetter e charing Co., ewport ir iron

me and Combs ,000. Chesa-, Louisps, , J. S. le, and build a

Sandy incisee Sharon ines in

tion of

d.

ls for
re-proof
pril 25
cost is

olasses; he Pat-

an fifty
ew Ormeeting
capital

luced in aryland

n City
Northsked for
ames W.

Sadder ouse on ganized to build an 80-barrel roller flour mill. The directors are James Tyson, James L. Adams and others. Mr. Tyson is superintendent and general manager.

Chattanooga—Furniture Factory.—It is stated that Temple & Shipp will enlarge their furniture factory.

Chattanooga --Lock and Hardware Factory.--It is reported that arrangements have been made for the removal of a lock and hardware factory to Chattanooga. If true the East End Land Co. can probably give information.

Chattanooga—Saw mill.—The Blair Lumber Co., reported last week as chartered, have bought and will operate the saw mill formerly owned by the Willingham Lumber Co.

Chattanooga—Furnace Factory.—It is reported, but not confirmed, that the Ruttan Manufacturing Co., of Chicago, Ill., will start a branch factory to manufacture heating furnaces, &c.

Chattanooga—Hotel.—It is stated that a company is being formed to build a large hotel on Mission Ridge. G. A. Holland can give information if true.

Chattanooga — Brewery. — The Chattanooga Brewing Co. (Conrad Geise & Co.) have let the contract for the wood-work of their building, lately reported, to Samuel Stone at \$6,500; the brick work to C. W. Stewart at \$9,000, and the iron work to the Chattanooga Car & Foundry Co. at \$2,100.

Chattanooga—Mining, &c.—W. K. Burton, J. T. Jamison, M. M. Bright, D. F. Harley and E. L. Drake have chartered the Hiawassee Mining & Manufacturing Co., to develop mines, quarries, &c., engage in manufacturing, build railroads, &c. The authorised capital stock is \$1,000,000, of which \$100,000 is to be paid in when business is commenced.

Chattanooga. — The Tennessee River Transportation Co. has been chartered by John P. Richardson, Samuel H. Drew and others.

Chattanooga—Pickling Factory.—A pickling establishment is reported to be started at East End. If true the East End Land Co. can give particulars.

Clarksville—Machine Shop,—Whitefield, Bates & Co, will build a new machine shop, and not a foundry as mentioned last week, It will be two stories, 35x60 feet, and is to be built during the summer.

Clarksville—Planing Mill,—It is reported that Smith, Clark & Co, will build a new planing mill in the summer.

Clarksville — Warehouse. — A tobacco warehouse will be built by Herndon, Hallums & Co.

Clinton—Zinc Works.—The Edes, Mixter & Heald Zinc Co., reported last week as to build two additional furnaces, will probably make other improvements also.

Columbia—Coal Lands, &c.—William J. Whittborne has, it is stated, about closed the sale of 164,000 acres of coal lands in Cumberland county to Chicago parties, who will, it is also stated, build a railroad, open mines, erect coke ovens, &c.

Covington—Cotton Compress.—The name of the company previously reported as purchasing a site to erect a compress is the Covington Cotton Compress Co. L. Hill, Jr., is president and James R. Hall, secretary and treasurer.

Curve—Canning Factory.—A canning factory is to be started.

Dayton—Street Railroad —W. C. Gardenhire and others will build, in the summer, the street railroad lately mentioned.

Dayton—Pottery.—W. C. Gardenhire and others are organizing a company to start a pottery.

Dayton-Hotel.-W. C. Gardenhire will build a brick and stone hotel, 60x80 feet.

Dayton—Church.—The Baptists will build a church during the summer.

Dayton—Canning Factory,—W. C. Gardenhire and Mr. Wilson will start a canning factory.

Dickson—Canning Factory,—A canning factory is reported to be started, S. C. Freeman can give information.

Dresden—Hub and Spoke Factory.—The building of a hub and spoke factory is being agitated.

Graysville — Lumber Mill. — McDonald Bros. will put new machinery in their lumber mill.

Helenwood—Coal Mine —James Frye is superintendent of the coal mine reported last week as to be developed by New York parties. They are now shipping 5 or 6 carloads per day.

Knoxville — Brick-yard. — A brick-yard will probably be started by J. F. Scott.

Knoxville-Cotton Mill.-There is again talk of a cotton mill being built.

Knoxville—Saw Mill.—W. C. Heyser & Co. will build the saw mill lately reported on the Tellico river. The daily capacity will be 100 M feet per day.

Knoxville — Furniture Factory. — The Knoxville Furniture Co. have put new and larger boilers in their factory to furnish more power than previously used.

Knoxville—Bridge.—The Board of Public Works are considering the erection of a bridge across the tracks of the East Tennessee, Virginia & Georgia Railroad at Broad street.

Knoxville—City Hall.—A city hall is to be built soon. The mayor can give information.

Knoxville—Brick-yard.—J. F. Scott will start a brick-yard about 8 miles from Knoxville. He has purchased engine.

Knoxville—Hotel—It is rumored that the East Tennessee, Virginia & Georgia Railroad Co. have purchased a site to build a hotel to cost possibly \$100,000.

Lebanon-Woolen Mill.-A stock company is being worked up to start a woolen mill. John Lester can give information.

Louisville—Saw Mill, &c —E. J. Copley is erecting a saw, planing and shingle mill, and will add a sash, door and blind factory and machinery for manufacturing kegs, &c., reported last week.

Madisonville—Oil and Gas.—The Bonham Oil & Gas Co. are reported as arranging to bore for oil and gas.

McKenzie—Canning Factory. — A fruit canning factory will probably be started.

Memphis. — The Memphis Novelty & Manufacturing Co. has been chartered.

Memphis—Stave Mill.—A stave mill is being built at Brownsville Landing by the Chickasaw Cooperage Co.

Memphis—Sewerage System.—The city engineer is preparing plans for a sewerage system for that part of the city north of Auction street.

Nashville—Dummy Railroad,—The High Street, Mt. Olivet & Upper Island Railroad Co. and the Nashville & Mt. Olivet Railroad Co., lately reported as chartered to build dummy railroads, have consolidated and will build but one road.

Nashville—Iron Mining, — The Napier Iron & Mining Co. has been chartered by E. W. Cole, J. H. Fall, W. C. Jones and others.

Nashville—Hotel,—J. L. Valentino and others have chartered the West Nashville Hotel Co. They will convert the Demoss residence into a hotel for the present, and contemplate building a hotel.

Nashville—Organ Factory.—It is stated that the Malcomb-Love Organ Co., of Waterloo, N. Y., will move their factory to West Nashville.

Nashville—Sash and Blind Factory.—The Sylvester Deering Sash & Blind Factory will be moved to West Nashville from New York, and a site has been secured. Nashville—Dummy Railroad.—The capital stock of the Belmont & Harpeth River Railroad Co., lately reported as chartered, is \$75,000, and James C. Bradford is president, and Lewis T. Baxter, secretary and treasurer. They propose to begin work on their road as soon as right of way is secured. It will be 9½ miles long.

Nashville-Steam Laundry.-W. T. Linck has lately enlarged his steam laundry.

Nashville—Furniture Factory.—A furniture factory is reported to be moved from Carrollton, Ky., to West Nashville. If true the Nashville Land Improvement Co. can give particulars.

Oliver Springs—Coke Ovens.—I 000 coke ovens are reported to be built soon after the Walden's Ridge Railroad is completed to Oliver Springs.

Owen—Saw Mill.—The Lathrop Manufacturing Co. have erected the saw mill reported last week. The capacity is 15 M feet daily. They have purchased machinery to erect a band saw mill with a daily capacity of 25 M feet, and expect to add a planing mill and stave machinery.

Ripley — Canning Factory.—A canning factory will be started.

Rockwood—Iron Furnace.—\$77,000 has been subscribed towards securing the building of an iron furnace. \$150,000 is needed. J. A. Shadden can give information.

Sweetwater—Canning Factory.—C. H. Hutcheson and John A. Pickell talk of starting the canning factory reported last week.

Sweetwater—Gold Mine.—Arthur Stewart is developing a gold mine in Monroe county.

Tracy City—Coal Tipple, &c.—The Tennessee Coal, Iron & Railway Co. have erected a new coal tipple, elevator, &c., at a cost of about \$10,000.

Tracy City—Coal Mine.—A new coal mine is reported to be opened about 2 miles from Tracy City. E. O. Nathurst can probably give information.

Union City—Courthouse,—The contract to build the courthouse previously reported has been let to W. W. McCoy, of Marietta, O. He will commence work about April 15.

Austin—The capital stock of the Aransas City Improvement Co, has been increased from \$250,000 to \$350,000.

Ballinger—Bridge.—The contract to build the iron bridge over the Colorado river, previously reported, has been let to Mr. Leversedge, of Dallas, at \$14.780. The span will be 180 feet.

Beaumont — Electric Light Plant.— Thomas & Gorman will erect an electric light plant, and want to purchase machinery.

Black Jack—Flour Mill.—A roller flour mill is talked of.

Bonham—Railroad,—Mr. Dean, assistant engineer Denison, Bonham & New Orleans Railroad, states that work will be commenced April 15.

Carr—Fire-brick and Tile Works.—J. S. Hogue, reported last week as rebuilding his pottery works, will start the manufacture of fire-brick and tiles.

Clarendon—Machine Shop.—The Fort Worth & Denver City Railroad Co. (office, Fort Worth) will build machine shops.

Cleburne—Electric Light Plant and Ice Factory.—The Cleburne Electric Light Co., previously reported, are receiving machinery for their plant, and will, it is said, add an ice factory.

Cleburne—Depot.—The Gulf, Colorado & Sante Fe Railroad Co. (office, Galveston) will build a \$20,000 depot in the summer.

Cleburne—Machine Shop and Round-house.—The Gulf, Colorado & Santa Fe Railroad Co. (office, Galveston) are preparing to rebuild their machine shop, reported last week as burned, and will probably rebuild their roundhouse also.

Corsicana—School.—The city council have selected a site for the school building reported last week. The mayor can give information.

Dallas-Brick Works.-Large brick works are reported to be started.

Dallas—Dummy Railroad.—The Dalla Rapid Transit Railroad Co., capital stock \$200,000, has been organized to build a dummy railroad to the fair grounds, J. E. Henderson, Luther Reese, Alexander Susger, W. H. Gaston and others are director.

Dallas—Factory.—The Dallas Branch Co-operative Manufacturing Alliance, usital stock \$200,000, has been incorporated by M. V. Cole, W. Y. Griffith, C. H. Patrick, E. A. Daniel, J. T. Holland and others.

Dallas—Oil Mill.—There is talk of starting a castor oil mill. If anything is done J. Gunter can probably give information.

Dallas—Union Depot —The several milroad companies are reported as making efforts to secure a certain site to baild a union depot.

El Paso—Ore Mining.—The Southwestern & Mexican Ore Syndicate, capital stock \$100,000, has been organized with C. C. Fitzgerald, of New York, as president; George B. Zimpleman, vice-president; and E. C. Roberts, secretary and treasurer.

Georgetown—Wood-working Factory.— Whittle & Harrel will rebuild their wood working factory, lately mentioned as burnel, and want to purchase a complete outfit of machinery.

Graham—Coal Mine.—J. R. Jowell will open a coal mine.

Greenville — Cotton Compress. — The Greenville Compress Association will shortly begin rebuilding their burned cotton compress, previously reported.

Hempstead—Depot, &c.—The Housteat Texas Railroad Central Co. (office, Houston) will build a depot and improve the property.

Huntsville—Courthouse.—The contract to build the courthouse, previously reported has been let to S. N. Darlin, of Palestine, at \$20,405.

Jefferson—Courthouse and Postoffice.

Proposals for building a courthouse and
postoffice for the United States government
will be received until April 19 by Will A
Freret, Washington, D. C.

Jefferson—Grist Mill and Gin.—T. C. Burcks will rebuild his grist mill and ga, lately mentioned as burned.

La Grange—Iron Bridges,—The contact to build four iron bridges has been let to the Missouri Valley Bridge Co., and the contract to build two iron bridges to the King Iron Bridge Co., of Cleveland, O.

Lockhart—Street Railroad.—A street mile road is reported to be built.

Marshall—Saw Mill.—C. L. Crosb, of Greenville, will erect a saw mill along the Marshall, Paris & Northwestern Railrost He has ordered machinery.

McGregor—School,—A school building is to be erected during the summer and a site has been secured. The mayor can give information.

Morgan—Reservoir.—The Morgan Walts
Works & Ice Co., previously reported, has
struck a good vein of water, and will push
ably soon begin work on a reservoir.

Plano—Flour Mill.—It is stated that the contract for building the 100-barrel relation mill lately mentioned will shortly be let. It is to be in operation for the commercian.

San Antonio-Hotel.-Efforts are being made to have a large hotel erected.

San Antonio — Smelting Works.—The Kansas City Smelting Co., of Kansas City Mo., have made a proposition to build making works with a capacity of 100 tons daily It will be accepted. The cost will be seless than \$150,000.

share of militor the G They She erecting viously Allian Sulj Spring has be aresid

Sar

resident of the second of the

works.

Wacci Gas Co Jenny !

Weat (Ga.) p erect a give in:

Weat

will be pacity i Weat Flour M their rol rels dail

of the

Chaggett
the cans
J. Bona;
as to fur
Alexa
Ship B
their mi
week as
Carter
canning

Danvi ture fact son can anything Elktor erecting

Luster & machine
Lexing
Figgat a start a casthe Lexistal stock
dent, and

Lexing church, I consideri Lexing ton Manufoundry.

foundry.

Lexing ton-Camp operate the cres, builting the stand less and in pre-

Liberty will soon system. Lynchbury will move

nill move plarge. Lynchb

San Saba-Railroad .- Beardsly & Wheelis here contracted to build a standard gauge lroad from San Saba to some point on the Galf, Colorado & Santa Fe Railroad. They will shortly make surveys.

n give

k works

Dallas

l stock build a

J. E. er San-irectors,

Branch

e, capi-rated by

Patrick,

f start.

is done

tier far

ting ef.

al stock

C. C. esident;

nt; and

ctory,— ir wood burned, outfit of

rell will

-The

d cotton

, Hous-

ve their

eportei, alestine,

office.-

use and

Will A.

T. C.

a let to

and the

to the

, 0.

reet mil-

osby, d long the

building

r and a

CAR gire

in Water ted, have

ill pmb

that the

rel roller hortly be

re being

s. — The sas City. Id smell-ses daily. I be sal

er,

tion.

ers.

Sherman-Flour Mill .- The contract for erecting the building for the flour mill, preusly reported to be built by the Farmers' Alliance, has been let to Kirkpatrick & Co. Salphur Springs-Lumber.-The Sulphur

Springs Lumber Co., capital stock \$50,000, has been organized with J. Q. Hargrove as resident, A. H. Avinger, secretary and gen-ral manager, and J. J. Dabbs, treasurer.

Taylor-Cotton Compress .- A company has been formed to erect a cotton compress-Terrell-Canning Factory.-Kennedy & Resuseaux well start the canning factory morted last week.

Terrell - Canning Factory. - M. Cartwright will, it is stated, start a canning fac-

Tyler-Brick Works,-Additional machinery will be put in at the Tyler brick

Waco-Electric Light Plant.-The Waco Gas Co. have purchased the plant of the Jenny Electric Light Co.

Weatherford-Cotton Compress.-Atlanta (Ga) parties have made arrangements to erect a cotten compress. The mayor can give information.

Weatherford-Flour Mill .- The capacity of the Parker County "Roller Flour Mills will be increased. The present daily capacity is 150 barrels.

Weatherford-Flour Mill.-The Crystal Flour Mill Co. will increase the capacity of their roller flour mill from 150 to 300 barrels daily.

VIRGINIA.

Alexandria-Canning Factory.-Thomas Claggett is making arrangements for starting the canning factory reported last week. J. Bonaparte, of Baltimore, Md., is reported u to furnish the capital.

Alexandria-Ship Yard.-The Maine Ship Building & Coal Co. will rebuild their mill and railway gearing reported last week as burned. The loss was \$10,000.

Carter's Creek-Canning Factory.-A casaing factory is to be started.

Danville-Furniture Factory.-A furni-ture factory is projected. George A. Watsen can probably give information when anything is done.

Elkton-Flour Mill.-S. P. H. Miller is erecting a roller flour mill.

Fincastle-Currycomb Factory.-J. O. Luster & Co. have lately added some new michinery to their currycomb factory.

Lexington-Canning Factory.-C. M. Figgat and others, previously reported as to start a canning factory, have incorporated as the Lexington Canning Co, with a capi-tal stock of \$5,000. J. P. Welch is president, and Mr. Figgat, secretary and treas-

Lexington - Church. - The Methodist church, Rev. A. M. Cackley, president, are considering erecting a new church.

Lexington-Iron Foundry .- The Lexington Manufacturing Co. are building an iron foundry.

Lexington-Ore Mining, &c.-The Peyton-Campbell Co. has been organized to sperate the Rockbridge Alum Springs, mine ces, build evaporaters for obtaining alum from the water, &c. The capital stock is to be not less than \$50,000. William F. Johnson is president and J. W. Moore, secretary.

Liberty-Flour Mill .- W. A. Falconer will soon remodel his flour mill to the roller

Lynchburg-Electric Light Plant.-The Incandescent Electric Light Co. will move their plant to another site and

Lynchburg — Ice Factory. — Edmund Schaefer has purchased the plant of the

Lynchburg Ice & Refrigerating Co. for \$27,500.

Newport News-Hotel -A story will be added to the Hotel Warwick.

Norfolk-Bridge.-H. E. Culpepper has contracted to build a bridge.

Norfolk-Church.-The contract for building the main room of the new edifice for the Centenary M. E. Church, previously reported, has been let to Joel C. White at

Petersburg-Water Works,-The West End Water Co., capital stock \$20,000, will be incorporated.

Pulsski City-Iron Furnace.-It is reported that parties are making efforts to build a charcoal iron furnace.

Pulaski City-Coke Ovens -- A thousand coke ovens are reported to be built. G. V. Litchfield can give information.

Pulaski City—Church.—A new edifice will be erected for the Methodist Episcopal Church South to cost \$25,000,

Richmond-Gas Works,-The mayor and city council will appoint a committee to receive bids and report upon the question of leasing the city's gas works.

Richmond-Tobacco Factory.-A large new brick tobacco factory is being erected by the J. B. Pace Tobacco Co.

Richmond-Electric Railroad.-There is talk of an electric railroad being built from Richmond along the Chesterfield turnpike.

Richmond-Cigar Factory.-P. Whitlock is building a five-story cigar factory of brick, 45x100 feet.

Richmond-Shoe Factory,-The contract for rebuilding the shoe factory building at the State penitentiary, previously reported as burned, has been awarded to W. O. Burton at \$25,346.

Roanoke-Railroad.-The Roanoke & Southern Railroad Co. will build their road, previously reported, themselves, and will shortly commence work between Martins ville and Ridgeway, and at Winston, N. C.

South Boston-Water Works.-Proposals for building water works are wanted. A. Venable can give information.

Staunton-Church.-The Bethel Church, reported last week as to build a new church or repair their present one, have decided to erect a new building. S. F. Pilson can give particulars.

Staunton-Fire Brick and Terra Cotta Works.-John H. Connell has been making investigations with a view to starting works to manufacture fire bricks, terra cotta, sewer

Warrenton-Brick Yard.-D. P. Wood will start the brick yard reported last week.

Waskey's Mills-Canning Factory.-Messrs. McCulloch and Lewis will start a canning factory.

Weems-Canning Factories.-Two canning factories will, it is said, be started.

WEST VIRGINIA.

Charleston-Gas Works .- The Charleston Gas Co. contemplate adding machinery to manufacture water gas.

Grafton-Church.-Mr. McConnell, of Clarksburg, has contracted to build a new church for the Episcopalians.

Grafton-Electric Light Plant,-The Grafton Gas Co. will erect a 60 light are plant and are negotiating for machinery.

New Cumberland-Chinaware Works,-Chinaware works are projected. Nothing definite has been done yet.

Palatine-Pottery.-The Palatine Pottery has been sold to parties who will put it in

Wheeling-Soap Factory.-D. L. Heiskell, S. B. Harrison, George M. Vardy, Samuel Crominger and others have formed the Wheeling Soap Co., to start a soap factory. The capital stock will be limited to \$50,000.

Box Factory.-C. L. Merrill, of Indian-apolis, Ind., and others will form a sto k company to erect a box factory at some point in the South. They will soon want to purchase considerable machinery.

BURNED.

Anderson, S. C .- The saw mill, grist mill and cotton gin of Gray. Gerard & Hillhouse, 6 miles from Auderson.

Bridgeport, Fla -The saw mill of C. W. Brown : loss, \$1,000.

Calhoun, Ga.-The wagon factory of M. E. Ellis, reported as destroyed by a storm. Will be rebuilt on a larger scale.

Chauncey, Ga.-The saw mill of Wilcox & Cleveland damaged by a storm.

Damas, Ark .- The gin of W B. Dumas Liberty, Va .- The flour mill of W. A. Falconer, three miles from Liberty; loss \$4,000.

Lumber City, Ga.-The turpentine works of Whedden & Holland, 2 miles from Lumber City, badly damaged by the late storm.

Tullahoma, Tenn.-The saw mill of H. P. Wiggs damaged by fire.
Umatilla, Fla.—The saw mill of McLin

& Taylor; loss \$1,000.

Cotton Compress to be Erected.

COVINGTON, TENN., March 20, 1888. Editor Manufacturers' Record

The Covington Compress Co. have been organized with L. Hill, Jr., president, and Jamas R. Hall secretary and treasurer.

To Erect \$75,000 Bank Building.

DALLAS, TEXAS, March 9, 1888.

Editor Manufacturers' Record: North Texas National Bank will begin at once the erection of a bank building, 6 stories high, 50x100 feet, to cost \$75,000.

Will Build Tobacco Factory.

SALISBURY, N. C., March 19, 1888. Editor Manufacturers' Record:

I will build tobacco factory and manu

facture tobacco this season.

EUGENE JOHNSON.

To Manufacture Fire Brick.

EMERSON, (STEGALL P. O.) Ga. March 24, 1888.

or Manufacturers' Record :

We have applied for a charter with the ziew to manufacturing fire brick, &c.

CHAR ADAMS.

Enlarging Zinc Works.

CLINTON, TENN., March 18, 1888. or Manufacturers' Record:

We are building two new furnaces and the company will probably make other necessary improvements.

Edes, Mixter & Heald Zinc Co.

Canning Factory.

RIDGELY, MD., March 20, 1888. Editor Manufacturers' Record:

Day Bros. will build and run a cannery ason with a capacity of about 10,000 cans per day. Will pack only tomate and peaches. DAY BROS.

Doubling Capacity.

BIRMINGHAM, ALA., March 21, 1888 Editor Manufacturers' Record:
We are now doubling our capacity.

BAXTER STOVE & MFG. Co.

OLD MONTEREY, TEXAS, March 19, 1888. OLD MONTAINE,

Editor Manufacturers' Record:

I intend to rebuild as soon as possible
my grist mill and gln. T. C. BURGES.

MACHINERY WANTED.

If you desire to purchase machinery of any kind consult our advertisin columns, and if you cannot find just what you wish, send us particulars so to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the atuntion of machinery manufacturers throughout the country. You will thus get all information desired as to prices, etc.

Boilers -Proposals for furnishing and delivering at New Orleans, La, two tubular boilers for Light Ves-el No. 43 will be re-ceived until April 19 by W. W. Nead, Lieut-Commander, U. S. Navy.

Box Machinery .- C. L. Merrill, Indianapolis, Ind., will soon want to purchase considerable machinery to start a box factory at some point in the South.

Brick Machinery,-Isidor Wallace, Afheville, N. C., wants to purchase brick machine with a daily capacity of 20,000 stiff brick per day, boiler and engine 15 to 20 horse power, and a press for making handpressed bricks.

Bridge.-Proposals for building a bridge at Laurel, Md., are being received by the county commissioners at Annapolis.

Canning Machinery is wanted by the Lexington Canning Co., Lexington, Va.

Electric Light Machinery.-The Grafton Gas Co., Grafton, W. Va., are negotiating for machinery for an electric light plant.

Electric Light Machinery .- Thomas & Gorman, Beaumont, Texas, want to purchase machinery for an electric light plant.

Furniture Machinery .- The Perkins Machinery Co., Atlanta, Ga., want the address of manufacturers of furniture and chair machinery.

Hair Felt and Tar and Building Paper .-H. A. Schriver, 220 Monmouth street, Newport, Ky., wants estimates on 45,000 square feet of I inch hair felt and 100,000 square feet of tar and building paper.

Rails, &c.-G. G. Culpepper, Boston, Ga., wants to purchase iron or steel rails, 30 or 35 pounds, plates and spikes for 6 miles of road.

Sewers -Bids for building brick and pipe sewers at Chattanooga, Tenn., will be received until April 2 by the Board of Public Works.

Water Pipe.-Charles W. Lucas & Co., Lovely Mount, Va., wants to purchase 1,200 to 1,500 feet of 1 inch water pipe.

Water Works.—Bids for building water works at Jackson. Miss., will be received antil April 25 by the mayor.

Water Works.—Proposals for building water works at Goldsboro, N. C. are wanted and will be received until April 25 by N. O'Berry.

Water Works.—Proposals for bailding water works at South Boston, Va., are wanted. A Venable can give information.

Wood-working Machinery.-Whittle & Harrel, Georgetown, Texas, want to pur-chase a complete outfit of machinery for a wood-working factory.

Will Rebuild Wood-Working Factory.

GEORGETOWN, TEXAS, March 24, 1888.

Editor Manufacturers Record:
We will rebuild and will want a complete outfit of wood-working machinery. WHITTIE & HARRELL

WARRENTON, VA., March 23, 1888. Editor Manufacturers' Record .

D. P. Wood has bought a lot near Warrenton, and proposes manufacturing brick.

Hopes to be able to supply the demand for
this section and possibly ship a number
abroad.

D. W. CALDWELL.

Mississippi Notes.

Agricultural and Manufacturing
Items.

(Special correspondence MANUFACTURERS' RECORD.)
ABERDEEN, MISS., March 24, 1888.

The Vicksburg Cotton-seed Oil Co., chartered by the Legislature recently, organized last week, electing Charles Mulholland president, with a paid up capital of \$50,000. They expect to have their building completed and machinery in place in time to commence work by the 1st of September.

Mr. W. D. Hill, of Washington county, is one of the leading haymakers and stock farmers of the Yazoo Delta. He has broken in eleven mule colts of his own breeding this season.

The receipts of cotton at Greenville this season up to March 16th amounted to 47,146 bales, against 32,498 to corresponding date last year.

The city of Jackson has advertised for bids for constructing a system of water works for that city, to be received until April 25th.

Plans are on foot that will, it is thought, secure the establishment of a cotton factory and a sash and blind factory at Jackson at an early day.

The United States land office at Jackson is besieged with Western and Southern lumbermen, and the receipts from the sale of pine lands in the southern counties, for the week ending March 17th were \$55,000.

The Trinity Parish Episcopalians of Natchez have just completed a beautiful building on the south side of their church, at a cost of \$15,500, to be used for Sundayschool and library purposes.

The receipts of cotton at Natchez for the season to March 15th amounted to 44,602 bales, against 39,771 to same date last year.

Madison Station, in Madison county, is already making large shipments of vegetables to the Northern and Western markets. Mr. A. Perkins, of that town, who is probably the most extensive grower of asparagus in the South, has been shipping for some days.

The legislature at its recent session granted a charter for the Mobile, Hattiesourg & Jackson Railroad, and it is understood that work upon it will commence at an early day. This project, which has been several times discussed in these notes, is a very important one both to Mobile and South Mississippi, and will open up a new country to settlement and commerce. The projected road will make a junction at Hattiesburg with the Queen & Crescent system and the Gulf & Ship Island road, and at Jackson will connect with the Illinois Central, Meridian & Vicksburg, Natchez & Jackson, and the Jackson & Yazoo City roads, and the combinations that they represent.

The receipts of cotton in Vicksburg for the season up to March 17th amounted to 59,000 bales, an increase of about 14,000 bales over last year. This does not include any part of the 41,000 bales transferred at Vicksburg by river steamers, nor the enormous amount transferred by the Mississippi Valley Railroad and other lines.

The Yazoo Delta (Miss.) Lumber Co., of which Mr. Geo. C. Henning, of Washington, D. C., is president, and which already owns an immense tract of valuable hardwood lands, is negotiating for the purchase of similar properties in that region of wonderful forests and soil to the extent of about 11,000 acres, and their general manager, Mr. A. E. Randle, expects to close up the trade on the 1st of April. We understand that the new purchase will include a saw mill and other plant essential to the lumber business.

The Illinois Central Railroad Co. last

week purchased a short saw-mill railroad in Lincoln county, locally known as the Hamilton & Hoskins road, but which was chartered as the Meridian, Brookhaven & Natchez Railroad, with all of its rights and franch ses. It is hoped and believed that it is the intention of the Illinois Central to extend this line, which now connects with its main trunk at Brookhaven, to Meridian on the east, penetrating one of the finest pine timber regicns in the State It also gives it a valuable franchise for reaching the Mississippi river at Natchez.

Mr. M. Reed, manager of a syndicate of Hickman, Ky., capitalists, is about to locate a large saw mill plant at Anthony's Ferry, on the Yazoo river, near the point where the Mississippi Valley Railroad crosses that stream. The company proposes to saw ash, oak, cypress, poplar and gam timber, to supply contracts made with agricultural implement and furniture factories in Chicago, Plano, Moline, Monmouth, Bloomington, Galesburg and Peru, in Illinois. They propose to erect a mill with a capacity of at least 10,000,000 feet per annum.

The "Committee on Public Welfare," organized at Meridian some days ago, is perfecting a scheme by means of which it expects to place the claims of that city and Lauderdale county fairly before the country. Mr. C. W. Gallagher, of the advertising committee, expresses the belief that they will be able to raise a fund of \$5,000 to be expended in that behalf. Mr. Gallagher is one of the most enterprising horticulturists in the State, and we hope that any scheme of advertising adopted will do full justice to this important industry.

Kaye & Sons, of Yazoo City, are making rapid headway with their ice factory, and expect to be in full operation next week, and ready to supply all demands from the city and surrounding country.

A meeting has been called at Yazoo City to organize a reading-room club. When a progressive scheme is suggested in Yazoo City it seldom falls to materialize.

John Antello, of Biloxi, has patented a life-boat that promises to be a great success. Experiments made with it last week in the presence of a large crowd, including many seafaring men, convinced all of its efficiency and that it will be of incalculable benefit in the life-saving service.

Crystal Springs, in Copiah county, shipped its first car-load of radishes of the season to Chicago on the 21st instant. Numerous mixed shipments of early vegetables had preceded it.

The city council of Greenville has accepted the bid of the Greenville Electric Light & Power Co. for lighting the streets by the Vanderpoel system. Twenty one 2,000 candle power arc lights will be put up to begin with.

The shipments of lumber from the port of Pascagoula, on the south coast of Mississippi, for the week ending March 22 were as follows:

	Feet.
Dordrecht, Europe	
Liverpool, England	631,232
	349,699
Cannes, France	379,344
Key West, Fla	247,700

In addition to the above, the schooner Cecilia sailed for the Mississippi river with 25,000 feet, loaded at the Dantzler Lumber Co's mills, and the J. W. Frost was loading at the same mills with 45,000 feet for New Orleans.

A new hotel will soon be completed at Moss Point, in Jackson county.

Mr. A. Adams, of Iowa, a recent visitor to Scranton, on our south coast, says in a communication to the Humboldt (Iowa) Independent: "* Not a particle of malaria is known to exist on this w ole coast, consequently the diseases dependent upon malaria do not and apparently cannot exist."

The first annual exhibit of the East

M ssissippi Poultry and Pet Stock Association that took place in Meridian last week was quite a success. The competition was lively and the exhibits numerous and excellent, particularly in the lines of poultry, birds and shepherd dogs.

The vicinities of West Point and Abbott, in Clay county, in the prairie of East Mississippi, are receiving many valuable accessions to their farming population from the West and Northwest. The new comers are all excellent people, who bring their stock and implements with them, and buy good lands and go right to work.

It is characteristic of the immigration that Mississippi is receiving, that it represents the very best class of American agricultural land buyers, a people who assimulate at once with the old settlers and native population, presenting a condition of perfect homegenity.

Adams Station, in Hinds county, promises in the near future to be a formidable rival to the towns in Copiah and Madison counties and on the south coast for horticultural supremacy. Two years ago there were not five acres in fruits in that vicinity; now it claims two hundred acres. Among others who have gone into this in dustry are Mr. I. R. Dyche, with 1,000 pear trees, and T. D. Martin, with seven acres in plums. This neighborhood has put in twenty acres of cucumbers and canteloupes, and thirty acres in tomatoes; it has already made large shipments of radishes and other early products. Mr. T. C. Biggs, of that settlement, will have a box factory in operation next season, and W. J. Verguson and others will put up a canning factory. The effect of the development of this new industry is to double the price of land in that neighborhood, and it is now held stiff at from \$25 to \$30 per acre.

The report of the State geologist of Tennessee upon the iron deposits in the vicinity of Duck Hill, in Montgomery county, Miss., that he was employed to inspect, is very flattering. It will not be many months before the charcoal iron industry will be developed in that vicinity, as well as near Enterprise, in Clarke county, in Northeast Monroe county and various other loadlities in the State where good iron ore deposits are known to exist and where timber is abundant and cheap. If these neighborhoods had possessed coal mines, they would have had iron furnaces long ago.

The receipts of cotton at Aberdeen for this season up to March 15 amounted to 25,542 bales.

The Kansas City, Memphis & Birmingham Rai road completed its magnificent iron bridge across the Tombigbee river at Aberdeen last week.

The Aberdeen Board of Trade has determined to adopt the most energetic and liberal plan of advertising the claims of the city and county, with a view to securing a full share of the immigration and capital now tending southward.

AMERICUS, GA., March 22, 1888. Editor Manufacturers' Record:

Mr. C. A. Bell contemplates establishing a straw matting factory at Americus during the coming summer. He has not settled upon any plans yet. RECORDER.

LUMBER CITY, GA., March 20, 1888. Editor Manufacturers' Record:

The Georgia Cooperage Co., of Savannah and Dupont, have opened here and have now running a barrel factory. Have an output of 150 barrels per day.

JOHN D. McLEOD.

Will Remodel Flour Mill.

LIBERTY, VA., March 23, 1888.

My flour mill in this place will soon be changed to the roller system.

W. A. FALCONER.

Decatur's Growth

DECATUR, ALA., March 15, 1888. Editor Manufacturers' Record:

Rep

Th

pig i the n

a reg

g25 S

by the

11,00

proba

owne

be to

for sa

the vi

The

white

of the

throug carbon of ma

iron, 0

The

which

Mu.he

per po

they p

The

64 cemi

lomite

soft ste was use at hand

Ca Mi Ph

It is

though sulphur Anoti

tendenc

ready i

Mountai

The a

credible

cation o

Anoi

So much has been written about a wonderful progress made last year in De. catur, that the average reader is liable to infer some recent discovery is the cause. This is not true. The only thing that kept Decatur from being a city ten years ago was that the people did not have money to develop it. The proximity of iron ore, coal, timber and agricultural produ caused Gen. Andrew Jackson, when standing by the spring in the bluff a mile above this city in 1814, to say: "At some day in the future the proximity of minerals and agricultural products will cause the build. ing of a manufacturing city at or near this point."

Men have often questioned them why Decatur did not grow. There was everything to make a city. Ores, coal stone, wood, minerals and cereals, all in close proximity. In addition two trunk lines of railroads cross here and give trans portation to all points of the compass for freights and rapid transit for passengers. In addition to this the Tennessee river, the fifth in size and third in length in the United States, is here to bear upon its bosom cargoes to the Mississippi, and thence to all the cities on that Amaz local waters and all its tributaries, thus acting in competition with the railroads, protecting Decatur from freight discriminations. There is nothing marvelous in the growth of Decatur. In 1822 land sold for over \$100 per acre. It has always been the idea that a city would one day be built here. All that it lacked was money to develop it.

In 1886 Decatur had a population of from 1,000 to 1 200. There was but little commerce. The only industry was in the lumber market. In that branch was H. G. Freeman's saw mills and stave mills (Mr. Freeman sawed the hardwood lumber that finished the Vanderbilt mansion in New York.) the band saw mills of Arasts Bros., and the planing mills of Bethard & Co. In the fall of 1886 the citizens of Decatur bought twenty-two acres of land and deeded to the Charcoal Chemical Co. on condition that the company would eret one of their plants here for the making of charcoal and the manufacture of wood alcohol. The people were generally poor, and that kept the town from growing.

The money was supplied by Major E. C. Gordon and his associates in January of 1887 for awhich syndicate bought 6,400 acres of land adjacent to the town and all the acre property and town property that could be On the 11th of January \$1,000,000 is cash was put in Decatur by the Decatur Land, Improvement & Furnace Ca. Business begun. Since then the most plan nomenal city in the civilized world has sprung up from cotton fields and blackjack thickets. For a while men went wild over stock, but no one thought of specilating, so speculators left and business men built a city. To-day there are at least 8,000 people here—many claim 10,000. There are forty one new industries of diversified manufactories that will employ 6,000 men, giving from this alone a population of 18,000. Most of these industries have about completed their buildings; many of them in operation. No industry many or them in operation. No industry is counted until the building begins. Over \$3,000,000 has been invested in the pass year. The city now has its own ice factories, electric light, telephone and stretcars. If 1,000 houses were built here in ten days at a cost of \$800 each, they could be rented as fast as completed for \$15 to \$20 per month. There is a demand here for that many houses in excess of what is be rented as the \$20 per month. There is a demand after that many houses in excess of what is coing up. House rent paid last year over the standard of the control of the c going up. House rent paid last year over 55 per cent. on investment. One instance is given where a double frame business house with rooms above paid 114 per cent. If the houses were built o supply the deliberation of the process were built of supply the deliberation of the process with the process were built or supply the deliberation of the process with the pr mand, Decatur would have a population of 20,000 in ninety days. Tom L. CANNOR.

steel and
analysis
this city,
the slag i
Meter
Static
Sulp
Phos
The pi
pounds of
left in th
pounds, v
was 2500
iron, so ti
ated with
It is inv
farnace a
phorus in
couled us
water just

Henderson Steel.

888.

in De. ble to cause.

t kept

oge ar

ney to

n ore,

oduct

stand-

above

day in

ls and build.

ar this

selve

WW 9

coal,

all in

trunk

trans.

se for

ngers. er, the

in the

i, and zon of

, thus

lroads.

crimi-

ous in

a bem

e built

to de-

ion of

t little

in the H. G.

ls (Mr.

er that

New

and &

of De-

nd and

Co. on

sing of

wood

poor,

0acms

tald be

,000 in

ecatur

ld has

black-

t wild

specu-

lesst

10,000.

ies of

dings;

dustry

Over

street ere in could \$15 to d here

what is ar over astance usines

the de-

g. jor E Report by Mr. James Henderson of His Steel-making at Birmingham.

HENDERSON STEEL WORKS, BIRMINGHAM, ALA, March 24, 1888.

These works were moved here to see if steel could be made here from Birmingham pig iron. They have been put up without the necessary adjuncts and capital for doing regular business, which they expected to add if they proved successful; but \$20,000 was subscribed of the \$1,000,000 authorized by the charter, and this has been pai : and early all used in the improvements made. The parties say they will get the rest of the capital subscribed and paid in to make it \$1,00,000, with which they will erect works, and they are now seeing about it, and will probably get it done after settling with the wners of the patents. The programme will he to erect one or more steel furnaces of 100 tons each daily capacity, and make ingots for sale to the four rolling mills here and in the vicinity, and erect a works to make steel castings and tool steel under the Henderson pa'ents.

The first trial here was with Birmingham shite pig with ore and fluorspar on a raw colomite hearth composed of fluorspars and omite, which lasted until near the close of the operation, when it melted and passed through the metal. The dolomite analyzes carbonate of lime, 59.8 per cent.; carbonate of magnesia, 39.2; silica, .34; pro toxide of iron, 0.1400, and is quarried on the premises-

The steel produced is superior tool steel, which practical experts at the railroad and other machine shops here say is equal to Muchet's, that sells by the ton at 48 cents per pound. It is still in use after withstandag three times the wear of tool steel that they pay 16 cents per pound for. The analy-

The pig iron cost \$10 per ton, and the ore 65 cents per ton on cars at mine.

Another trial was made on a calcined dolonite and fluorspar hearth with pig and scap steel and ore with less fluorspar for soft steel. Five per cent. of speigeleisen was used, as there was no ferro-manganese at hand. The steel analyzed:

It is first-class metal for boiler plate, although the pig contains 0.3286 per cent, of

Another trial was made yesterday on a alcined dolomite hearth under the superintendence of the Birmingham Chamber of Commerce, the analysis of which will be ready in a few days. It was all "Mary Pan" white pig iron treated with Red Mountain ore, and is very soft and of good

The analyses of the slags of the second trial show results which will be deemed incredible to many, although since the publiution of my treatise on metallurgy, iron, stel and fuel will not be new to them. Th analysis is by Mr. Alfred F. Brainerd, of this city. There was about 200 pounds of the slag to a ton of steel:

The pig iron and ore contained about 13.5 pounds of phosphorus and there was .7 pound in the steel; the difference, about 10% pounds, was volatilised. The iron ore used was 350 pounds of 45 per cent. metallic ine, so that 85 per cent. of it was incorporsted with the charge.

It is intended to attach condensers to the fenace and condense in the volatile phosplanus in the gases after they have been couled under a boiler, by forcing them into vater just above the freezing point, and thus mice hydrous phosphoric acid of any required strength, and sprinkle it over the land to fertilize it. By this process the slag will not contain enough phosphorus to be of

The results are obtained in a great degree by the homogeneous flame produced by burning the gases before they enter the steel converting chamber, which of themselves cause the volatilization of the phosphorus, as every 100 pounds of coal burnt yields 45 pounds of vapor water to them, which dissociates in burning to oxygen and hydrogen. The water for condensing the gases will be cooled by an ammonia ice apparatus.

These works are located about 300 yards from the Sloss Steel & Iron Co's two furnaces, now building, of 150 to is each per day capacity. It is expected to convey molten iron from them on railway trucks to the steel furnaces, which are arranged so as to divide the operation into refining in one chamber adjoining the chamber in which the metal is finished into steel, both in the same furnace and heated by the same flame. The metal after refining is poured into the finish-ing chamber, thereby enabling twice the quantity to be made in the same time and fuel as if the operation is made in one chamber. The refining chamber is not hot enough to make steel, so that the effect is only sufficient for refining, by reason of its being heated by the waste heat of the finishing chamber, and the fuel will be reduced to about three bushels of coal per ton of steel made in the furnace.

Builders of new blast furnaces hereabout contemplate making steel ingots for sale North to the rolling mills instead of pig

Calcined dolomite mixed with 10 per cent. of fluor makes a durable lining.

TAMES HENDERSON.

A FEW weeks ago we told of the enormous freight traffic, equalling nearly one-half of the entire cotton crop, that would be furnished to the railroads by Anniston's new iron furnaces. The Sheffield Enterprise now presents some statistics as to the freight traffic that will be developed by the five furnaces under construction at that place. The five furnaces taking the inward freights of ore, coke and limestone and the outward freight of pig iron will furnish 3,815 tons daily, or 1,392,475 tons of freight a year to the railroads. This enormous traffic will come simply from the furnaces in a town, the site of which four years ago was a corn field. This gives some idea of how the South is developing and what Sheffield is

THE piquant and refreshingly novel story of "Yone Sato, a Child of Japan," which E. H. Housen is writing for the Atlantic Monthly, is continued in the April number. The number contains the second part of Henry James's entertaining "Aspern Papers." A timely biographical critique entitled "Ferdinand Lassalle," written by D. O. Kellogg, treats of that restless socialist's life, and its influence in Germany and France. "The First Crisis of the American Revolution" is the title of a most readable and valuable article by John Fiske. Former articles on kindred topics by Frank Gaylord Cook are supplemented in this number by his account of "The Marriage Celebration in the United States," and in added chapters to "The Despot of Broomsedge Coye," Charles Egbert Craddock, one finds justification for the claim, recently set up, that this is the most enjoyable of all the enjoyable stories written by that gifted author.

** If you wish to keep posted on the progress of the South, read the MANUPACTURERS'
RECORD. Price \$3 00 a year.

TALLAPOOSA, GA, March 21, 1888.

Editor Manufacturer? Record;
O. W. Bullock, T. M. Kellogg, Mr.
Meade and myself have incorporated the Georgia Ore & Furnace Co., and have purchased what was formerly known as the Crow Iron Ore Bank, at Allatoona, Bartow county. The price paid for this bank was \$25,000. We shall immediately put in machinery for mining and a steam tram-way for 1½ miles to the Western Atlantic Road The ore of this mine is used very extensively for fluxing purposes in rolling mills, and there is a large demand for it. We have a contract already with the Tallapoosa Furnace Co. to furnish them a portion of their ore of this grade.

R. L. SPENCER

Cotton Compress to Be Built.

HILLSBORO, TEXAS, March 20, 1888. Editor Manufacturers' Record:

Citizens of Plano have contracted with Files, Taylor & Files, Hillsboro, Texas, for one of their 90-inch Taylor lever cotton compresses. They have also in contemplation the erection of a large roller mill.

GRO. TAYLOR.

LINCOLNTON, N. C., March 20, 1888. Editor Manufacturers' Record:

We have just completed and started up our new wood pulp mill, which, in connection with our previous one, enables us to make 4,000 pounds dry pulp per day, and have increased the capacity of our paper mills to 8,000 pounds daily, using all our wood pulp. Our outlay in these improvements and extensions has been about \$10,000. W. & R. Tiddy.

Will Erect Electric Light Plant.

GRAFTON, W. VA., March 26, 1888 Editor Manufacturers' Record :

We are negotiating for an electric plant for arc lighting. Will erect as soon as practicable a 60-light are plant.

GRAPTON GAS Co.

Will Build Street Railroad and a Hotel.

DAYTON, TENN., March 20, 1888. Editor Manufacturers' Record:

We will build a street railway this summer and a fine hotel, 80x150 feet, brick and stone. We are getting up stock for a pottery. W. C. GARDENHIRE. pottery.

Remodeling Blast Furnace.

NEWPORT, KY., March 24, 1888. Editor Manufacturers' Record :

I have purchased the Swift Iron & Steel Works and am running it to its full capacity, with the exception of the blast furnace, which is being entirely relined and remodeled. I am also building the new Wiedemann Brewery, 180x165 feet, 3 and 4 stories in height. H. A. SCHRIVER.

ASHTABULA, OHIO, March 24, 1888. Editor Manufacturers' Record:

The Georgia Mica & Mineral Co. are now at work, putting in tunnel, on their mica mine, located in Cherokee county, Ga., and intend to develop mine fast as possible and ascertain what there is in it.

H. Fossett, Sec.

BELLEVIEW, FLA., March 23, 1888. Editor Manufacturers' Record

The Belleview Steam Power Co. has

been organized, and my rice and grist mill and the handle manufactory of E. E. Converse, lately burned, will be continued with increased facilities.

CLARKSVILLE, TERR., March 21, 1868. Editor Manufacturers' Record :

We intend to build a new machine shop in ; lace of the old one we have now, 36x60 feet, two stories. We have a new foundry, built two years ago, and will tear down the old machine shop about August 1st. There is a new ice and bottling w rks about finished here. Smith, Clark & Co. will, I think, build a new planing mill this summer. Herndon & Hal-luws will build a large warehouse. Ed. Lucas will build a stave and heading mill.

WHITPIBLD, BATES & Co.

New Flour Mill.

ALEXANDRIA, TENN., March 19, 1886. Editor Manufacturers' Record :

The old mill has been torn down and the new one is being built. The machinery will be placed in it soon by the Alexandria R M. BONE. Roller Mill Co.

Brick Works.

ANNISTON, ALA., March 28, 1888.

Editor Manufacturers' Record:
We have commenced the manufacture of brick by hand; capacity 14,000 per day, and expect to put in machinery and increase capacity to 20,000 or 25,000 per day. Firm name will be Leak & Co.

W. H. DAVIS

Starting Chair Factory.

JONES MILLS, GA., March 24, 1888. Editor Manufacturers' Record:
I am putting in my machinery for chair

factory, and expect to get started up by the first of May next. R. H. MILAM. the first of May next.

Saw Mill.

CRESWELL, GA., March 24, 1888. Editor Manufacturers' Record:

We are now erecting saw mill; 25 horse power engine, capacity 10,000 feet hard lumber per day. May put in spoke and handle factory. J. T. & G. W. Moons.

Union Spaings, ALA., March 15, 1888. Editor Manufacturers' Record:
The Etowah Warehouse & Compress

Co. (Gadaden) was to-day incorporated with \$20,000 capital stock.

J. J. RAMBRY.

Saw Mill.

FAYETTE C. H., ALA., March 24, 1888.

Editor Manufacturer' Record:
We will have in operation in 10 days
saw mill; capacity 12 to 15 M feet per day. Will saw white oak, poplar, sweet gum, hickory and beech. Can fill large orders promptly. Would like to contract with companies who use beech for plane stocks, saw handles. Beech finishes up W. A. SEYMOUR & Co.

ASHEVILLE, N. C., March 26, 1888. Editor Manufacturers' Record :

We expect to add to our furniture factory during the next 80 days a building, 100x50 feet, two stories, for finishing and storing purposes. AVERY & ERWIN.

MANAGERS of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises, and needing machinery or supplies of any kind, will find it profitable to consult the advertising columns of the MANUFACTURERS' RECORD. Its pages con-tain names of the best houses in the country mong manufacturers of and dealers in machinery and mill supplies,

Bids for Erecting Courthouse Wanted.

ABBEVILLE, LA., March 20, 1888. Editor Manufacturers' Record

Bids for a \$22,000 courthouse, constructed according to plans and specifications on file, will be received by W. W. Edwards, chairman of building committee, until The building to be brick, with fire-proof vaults, etc. W. W. EDWARDS.

Built New Flour Mill.

ATLANTA, GA., March 19, 1888. Editor Manufacturers' Record:

We have just completed our new roller mills on flour of 150 barrels capacity per day, having 5 brakes on wheat and the centrifugal process for bolting. Our capacity on meal is 1,000 bushels per day.

ZACHRY BROS. & Co.

Canning Factory.

BROWNSVILLE, TENN., March 24, 1888. Editor Manufacturers' Record:

The Brownsville Canning & Manufacturing Co. have applied for a charter, and will organize next week. Sufficient money has been subscribed to assure a canning factory being built. We have several other enterprises on foot.

DORSEY O. THOMAS.

Enlarging Factory.

DECATUR, ALA, March 22, 1888. Editor Manufacturers' Record:

We are enlarging our factory 50x75 feet three stories high, and using the basement for machine repairing. This is the second addition we have put to our factory within eight months, and still we are crowded for room.

DECATUR WHEELBARROW Co.

To Build Dummy Railroad.

NASHVILLE, TENN., March 23, 1888. Editor Manufacturers' Record:

The Belmont & Harpeth River Railroad Co. was organized March 12, and charter obtained from the State of Tennes The bill granting right of way into the city of Nashville has passed two readings of city council. The road will be 91 miles long, and will use dummy engines. Capistock \$75,000 President is Jas. C. Bradford, attorney, secretary and treasurer, Louis T. Baxter, Esq. The road will be built as soon as right of way is ob-LOUIS T. BAXTER.

Developing Coal Mine.

HELENWOOD, TENN., March 24, 1888. Editor Manufacturers' Record :

We are developing a coal mine, and have built a mile railroad and necessary buildings. Are shipping 5 or 6 cars per JAMES FRYE, Supt.

Canning Factory.

GREEN FOREST, VA.. March 24, 1888. Editor Manufacturers' Record:

We have completed our arrangements, and are now preparing to start a vegetable and fruit cannery at the site of the old Buena Vista furnace on South river in Rockbridge county, Va.

C. F. JORDAN & Co.

Will Put in Electric Light Plant.

AUGUSTA, GA., March 21, 1888. Editor Manufacturers' Record :

We are putting in new wheel, and will start an electric light plant during the summer at a probable cost of \$10,000.

AUGUSTA FACTORY.

A. F. CROMBE, Supt.

Contemplate Building Large Saw Mill.

KNOXVILLE, TENN, March 20, 1888. Editor Manufacturers' Record:

We will, during the present year, erect on the Tellico river a saw mill with a ca pacity of 100 M feet per day. We have a tract of about 120,000,000 feet fine timber situated on that river.

W. C. HEYSER & Co.

Adding Machinery.

CLEVELAND, TENN, March 21, 1888. Editor Manufacturers' Record .

We are now adding new machinery to our factory, and hope by this addition to turn out 500 chairs per day.

CLEVELAND CHAIR CO.

Canning Factory.

LEXINGTON, VA. March 20 1888. Editor Manufacturers' Record .

A charter has been secured for the Lexington Canning Company, and we are now ready to contract for plant, cans, &c.

LEXINGTON CANNING CO.

Erecting Saw and Planing Mill.

LOUISVILLE, TENN., March 20, 1888. Editor Manufacturers' Record:

E. J. Copley has a large house built on the river at this place, and putting in machinery for sawing and planing lumber and making shingles, and says he intends to add machinery for making sash, doors and blinds; barrel and kegs, and perhaps tubs and buckets. Mr. Copley owns immense marble beds in this vicinity, and gets out considerable marble, H.T. Cox.

Will Erect Electric Light Plant.

BEAUMONT, TEXAS March 24, 1888. Editor Manufacturers' Record:

We intend erecting an electric light plant in this city, and desire the necessary THOMAS & GORMAN. machinery, etc.

Building Planing Mill.

DECATUR, ALA., March 22, 1888. Editor Manufacturers' Record :

We are erecting a planing mill on our grounds at the cost of about \$6,000. Trade in our "Chicago of the South" is immense. DECATUR BUILDING SUPPLY CO.

Building Planing Mill.

PARKERSBURG, W. VA., March 24, 1888. Editor Manufacturers' Record:

We have just completed dry house with capacity of 25 M feet a day, and are now at work on planer mill 100x65. Have taken out circular during winter, and now run two band mills with steam feed. Capacity of mill from 60 to 75 M feet a day; mostly poplar, with some oak. Size of mill is 144x60. LITTLE KANAWHA LUMBER Co.

Two Saw Mills.

OWEN, TENN., March 23, 1888. Editor Manufacturers' Record :

We have purchased and will have in operation next week a saw mill of 15,000 feet capacity, and have also purchased a Fay band saw mill, 25,000 feet capacity, which we shall put up as soon as buildings, &c., can be prepared. We expect also to add planing mill and stave saws. Our company incorporated as

LATHROP MFG. Co.

TERRELL, TEXAS, March 23, 1888. Editor Manufacturers' Record:

I think we will have two canning factories here soon; Kenedy & Reauseaux, proprietors of one, and M. Cartright, the T. R. WAMSLEY.

Cotton Mill to Be Enlarged.

MONBO, CATAWBA CO., N. C , Mar. 22, '88. Editor Manufacturers' Record

The Monbo Manufacturing Co., Monbo, N. C., have sold their Long Island Cotton Mills, located one mile above their plaid mills on the Catawba river, in Catawba county, to Mr. James Brown, of Merchantville, N. J. He is a practical man of experience, and will at once arrange the mills for the making of hosiery. Besides putting in knitting machines, he will put in about 500 new spindles, erect lapper house, dve house, and expects to soon employ from 100 to 150 operatives.

MONBO MANUFACTURING Co.

Erecting Stave Factory.

HARRISBURG, ARK., March 20, 1888. Editor Manufacturers' Record .

We are erecting a stave factory at this point for the purpose of manufacturing all kinds of cylinder sawed staves and headings to match. We also expect to add stave buckers and spoke machines in the near future. We have been operating stave factories in West Tennessee for the past twelve years. We expect to have our factory in operation by the 20th of April.

KENNEDYS & MORELOCK STAVE CO.

ARCHITECTS and Mill ENGINEERS
PROVIDENCE, R. I. Plans. Specification ROVIDENCE, R. I. Plans, Specifications and stimates furnished for Cotton and Woolen Mills

LOCKWOOD, GREENE & CO.

MILL ENCINEERS,

NEWBURYPORT, MASS.

PLANS AND SPECIFICATIONS FURNISHED FOR THE CONSTRUC-TION, EQUIPMENT AND ORGANIZATION OF COTTON AND WOOLEN MILLS.

WM. O. WEBBER.

Mill Consulting Engineer, 88 Mason Building, - Boston, Mass.

SPECIALTIES.—Measurement of power. Designing and installation of motive power and manufacturing plants. Hydraulic Engineering.

West Point, Va.

A growing town. Property increas-ing in value. Factories invited. ing in value. Factories invited. taxation.

Splendidly located on York river.

Steamer lines to Europe, New York -Baltimore, &c.-

Oysters and fish in unlimited abundance. Surrounded by the great fruit and trucking country of Virginia. For any particulars desired, address, E. WILKINSON, MAYOR.

Eufaula Manufacturing Improvement Co.

Sapital Stock, \$100,000. EUFAULA, ALA.

This Company has been organized for the purpose of AIDING AND ENCOUR-

MANUFACTURING AT

EUFAULA, ALA.

and will invest its capital with parties de-sing to start Cotton and Bagging Mills, Commercial Fertilizer Factories, or any other branch of manufacturing. Persons desiring to make investments of this char-acter would do well to correspond with this Company. Address

GEO. C. McCORMICK, Sec. & Treas. or E. B. YOUNG, President.

E GARDEN SPOT OF ALABAMA.

Unsurpassed by any other Placin the United States.

A Pamphlet giving a partial description of BREWTON and its surroundings, its unequaled climate, the many advantages for capital seeking investments in farming or factories, will be sent free, on appl catio

BREWTON, ALA. March 24, 1888.

H. H. MALONE, C. F. RANKIN, C. D. HENDERS

TOG

wood wood wood

Inte

T

CHE

It i

farmi South lookis

mane follow peopl nesses Hame

Lake ist tio stop of are of Lake

ticket

via th

E

The Co., I new their new r South blast make factur

free (

FOR SALE.

THE FINEST -

Coal & Iron Property

IN THE SOUTH.

Consisting of 10,000 ACRES OF LAND.
Railroad crossing the property, and paying mines in operation in same vicinity.
A RARE BARGAIN. Call upon or

H. B. WETZELL & CO.

138 GAY STREET, - KNOXVILLE, TERN

GREEN FOREST, Rockbridge County, Va.

Best location in the State for a Furnace. Vast beds of rich Buena-Vista iron are at hand. Coke at less than three dollars per ton. Eight acres for a site offered FREE on the S. V. R. and the R. & A. Railroad. Best location for a Paper Mill. Supply of soft wood unlimited. Two acres FREE

Best location for a Woolen Mill. One acre FREE for a site. Large water power available. Write to B. C. MOOMAW.

WATER WORKS

Sealed proposals will be received by the Board of Aldermen of Goldsboro, N. C., until April 25, 1888, for supplying said City with a bountiful supply of water both for fire and domestic purposes. The Board reserves the right to reject any and all bids. For full information and specifications for said works, address

NATHAN O'BERRY, Chairman Water Works Co

HUNUUM,

The Capital of the State, is centrally located on Pearl river.

The Illinois Central Railroad crosses the Vicksburg & Meridian (a part of the Queen & Crescent System) here. The Natches, Jackson & Columbus Railroad ends heres present. This is also the terminus of what is known as the Yazoo Valley Branch of the I. C. R. R. JACKSON is likely to be the terminus of one, - perhaps two other roads in the near future.

The Pearl River bottoms are covered with fine timber,—Pine, Cypress, Ash, Poplar, Hich ory, White Oak and Gum, which can be floated

The Climate is Delightful, and the soil well adapted to Horticulture,

Hay, Grain and Cotton. A Board of Trade, recently organized,

composed of a large number of our best business men, are determined to

Encourage all Kinds of Manufactories. They will subscribe liberally, and cordially invite capitalists desiring investments to examine our resources and opportunities

For information on these and other jecta address P. W. PEEPLES,

Pres't Board of Trade

for the a furn will de stock. tionat

any at which in the ten, on propose access number access number access number access number access for the any on a state any on a state any or a state and a state and

TeCapitalists, Manufacturers & Machinists. WANTED.

AMA.

lace

cription

ngs, its ages for ning or ation to

ONE, IN, ERSOK,

G.

erty

icinity.

pon or

TENN.

ST.

are at

FREE

iroad. Supply FREE

One

AW.

KS

eived

en of

2 25.

City

vater

purthe

bids. peci-

dress

SS.

lly lo-

es the Queen stches, nere st

what

nch of be the

roads

l seiti

. Hich facial

ul.

ilture.

ories.

dially

nts to

Crade.

0.

MORGAN, BOSQUE CO., TEXAS,

At MORGAN, BOSQUE CO., TEXAS,

ROLLET Mill Capacity not less than 100 barrels. Will donate said \$1,000; or take \$3,000 in stock. Sufficient wheat for said mill can be purchased in our market, and at least one-half of groducts can be sold at mill. Also, A WOOLEN FACTORY, not less than 12 looms. Will donate sufficient grounds and water, and will take one-third stock. Wool for factory can be bought in our town. All products of factory can be sold in Bosque and adjoining counties. We believe 25 to 35 per cent. net profit can be made in each of these enterprises. We have many advantages over any other location. For information address J. W. Glipin, Mayor, or Thos. F. Lockett, President Morgan Water Works & Ice Co.

Interesting to Travelers South

The section of the South attracting by its wonderful development and prosperity the attention of the whole world is traversed by the Queen & Crescent Route, (Cincinnati Southern and Associate Roads) Express sains, the fastest in the South, leave Cincinnati daily at 7 55 A. M. and 8.co P. M. for Chattanooga, Birmingham, Atlanta, Dectur, Gadsden, Tuskaloosa, etc. When going South, do not fail to procure from your nearest agent tickets which read via Cincinnati and the Queen & Crescent Route. Isquiries promptly responded to by H. Colibran, General Passenger Agent, Cincinnasti.

CHEAP-FARMING LANDS SOUTH

It is a recognized fact that the cheapest arming lands in America to day are in the outh, and men of much or moderate means farming lands in America to day are in the South, and men of much or moderate means looking for real estate investments, or permanent homes, should not fail to visit the fellowing points, where so many northern people are now settling, viz: Jackson, Tensense: Aberdeen and Jackson, Mississippi; Hammond, Crowley, Jennings, Welsh and Lake Charles, Louisiana. Round-trip tourist tickets, limited to June 1st, 1888, with stop over privileges south of Cairo, Illinois, are on sale to New Orleans, Jennings and Lake Charles. For rates apply to nearest ticket agent, and be sure your tickets read tathe Illinois Central Railroad from Chicago or St. Louis. For pamphlet entitled "Southern Home-Seeker's Guide," and circular concerning the above named points, lows.

J. F. MERRY. Gen. West. Pass. Agt.

Blast Furnaces Wanted.

Blast Furnaces Wanted.

The Athens Mining & Manufacturing Co., Athens, Tenn., are erecting \$500,000 new manufacturing improvements upon their property, and are opening, with a new railroad, the finest iron fields in the South. They desire to have one or more blast furnaces located at Athens, and make the following offers to iron manufacturers and capitalists:

1. They will donate an excellent site free of cost, and in addition will give \$10,000 cash subsidy upon closing of contact and execution of satisfactory bond for the erection, as soon as practicable, of a furnace with 100 tons daily capacity; or will donate site and subscribe for \$25,000 stock. The same offers are made proporticately for furnaces of leus capacity.

2. They will lease the mines upon royalty or will deliver at furnace both red and brown ores, superior in quality to any at present mined in the South, and which will yield not less than 50 per cent. In the furnace, at say \$1.25 to \$1.50 per ion, or anyway 10 per cent. less than ores proportionately rich cost Chattanooga furnaces. They will contract to deliver any number of tons daily. Lowest freight rates will be obtained on manufactured products to markets.

The finest limestone can be had on the ts to markets.

The finest limestone can be had on the

The finest limestone can be had on the property for cost of quarrying. Coke can be had at Chattanooga prices. Analysis of the ores will be furnished upon application. No place in the United States has better advantages than Athens for the cheap manufacture of superior iron. The company reserves the right to select any one or two of such propositions as may be received.

my one or two pondence solicited.

R. J. FISHER, Tress. and Gen'l Man.

LIST OF NEW TOOLS ON HAND.

SECOND-HAND TOOLS TAKEN IN TRADE FOR NEW.

ro-in. swing, 4-ft. bed Engine Lathe, F. E. Reed. Blaisdell. Lathe & Morse. Fifield. Hendey. Whitcomb. Lathe & Morse, Whitcomb. Flather Gleason 36 " 30 " 9 " 6 and 8-in. stroke Shapers, 15 and 24-in. " so and 25-in. " 18-in. awing Lever Drill, 26 " Upright Drill, 46 " Boynton & Plummer, Hendey, Eberhardt, Prentice Bros

HILL, CLARKE & CO.

156 OLIVER ST., BOSTON, MASS.

BRANCH OFFICE:

Bank of Commerce Building, St. Louis, Mo.

Second-hand Machinery in Good Order.



ron Working Machinery. For Sale Cheap FOR SALE

Valuable Factory Property.

OFFER FOR SALE, on satisfactory terms, the FACTORY PROPERTY in Greensboro, N. C., known as the

NORTH CAROLINA Goach Material Co.'s Mills,

Consisting of Brick Factory, two stories, aggo feet; Frame Factory, adjoining two stories, doxing: three Brick Dry Houses, each syao, filled with Steam Pipes; Stone Engine, song 4; Brick Bolter House, sya45; one Spoke Shed, syat50; one Warehouse, 50050; one Warehouse, 50050;

THOMAS MCMAHON, RICHMOND, VA., OR GREENSBORO, N. C.

FOR SALE

A complete line of

Cooking & Heating Stove Patterns

FOLLOWBOARDS AND FLASKS,

Address LOCK BOX 117, Ironton, Ohio.

TEEL RAILS

Logging, Mining and Plantation

RAIL AND TRAM BOADS. Light Sections Rails and Spikes in stock

Locomotives, Logging Cars, etc. NEW AND BEOOND HAND.

HUMPHREYS & SAYCE OFFICE NO. I BROADWAY, N. Y.

FOR SALE-SECOND-HAND Railway Equipment.

We offer the above at low prices for cash or on easy terms or Car Trust; or will exchange for good securities. Whether you wish to buy, sell or trade, it will pay you to write us for full particulars.

THE NEW YORK EQUIPMENT CO.

10 WALL STREET, NEW YORK.

L. V. WALKLEY, Socy JAMES INVINE, Prest.

Subscribe to the MANUFACTURERS' RECORD. Price \$2.00 a year or six months for \$1.50.

ns in. z 8 ft. Lashe. New, V. Planer, göxnş ft. Planer, saxış, and z səxş ft. Planer, saxış, and z səxş ft. Planer, saxış, and z səxş ft. Pulley Lathes, ső and gö in. Forster's Stone Breaker. Ge Broom Handle Lathe. Planers and Matchers. Planers and Matchers. Send for circular of New and

W. H. ROBERTSON,

45 South Canal Street, CB10468, ILL.

Cotton and Woolen MACHINERY.

50 Crompton Fancy Cotton Looms, 36 inch reed space for 12 Harnesses, 1 to 4 Box, nearly new.

In my Store Houses here can show 2 ACRES of floorage covered with good machinery. Have full system for both Cotten and Woolen Mile. Send for full list.

Dowell, Mass. Office, 108 Middle St.

FOR SALE. Second-Hand Machinery.

We offer for sale 4 Fly Frames (Higgins), 120 spindles each, 8 inch traverse. Two Slubbers (Higgins), 68 spindles each, 10 inch traverse.

To inch traverse.

The above is now running in our mill, and we can deliver it about May or June. We also offer 33 Whitin 36 inch Sheeting Looms, which we can deliver at once. All this machinery is in good order.

W. H. BALDWIN, JR. & CO. SAVAGE, HOWARD CO., MD.

Cotton Machinery FOR SALE.

Needing the room for our waste business, we offer for sale our yarn machinery, composed of lappers, cards, railway heads drawing, roving, spinning, spooling and twisting frames, warpers, reels, ball-winders, rope machine, yarn-tester, with shafting, hangers, pulleys, belting, bobbins, spools, cams, &c., &c., &c.,—a complete carpet warp mill in every particular. We have 2,400 spindles, two-inch rings, capable of producing thirteen thousand pounds of carpet warp in sixty six (66) hours. The machinery is in splendid condition, and can be seen at work at our mills, in the city of Augusta, Ga., until May, to which time we are under contract to one party for the entire product of the mill. The yarn made on this machinery stands second to none in the Eastern markets, which evidences the condition of the machinery. This is a rare opportunity to secure a completely equipped mill, with everything ready at hand, at much less expense than new machinery alone would cost. This machinery was all new less than seven years ago. seven years ago.

For further particulars apply to THE RIVERSIDE MILL.

AUGUSTA, GA.

SALE FOR

25 7 1-316, 6-3 Speeders. 200 Spinning Frames, 1 % in., 1 % in., 2 in. & 2 % Ring, common, Spindle Taper, Rabit Sawyer Spindle.

1 36-in. 1 Beater Breaker Lapper.
2 36-in. 2 Beater Kinsher Evener.
3 36-in. 3 Beater Kinson, with prepairor.
3 36-in. 3 Beater, Whiting's.
5 36-in. 8 Easter, Whiting's.
5 36-in. 8 & 3 Beater, Whiting's.
5 36-in. Welman Striper, Whiting's Cards.
5 36-in. Welman Striper, Saco Water Power.
6 30-in. Welman Striper, Whiting's.
6 36-in. Welman Striper, Whiting's.
7 36-in. Welman Striper, Whit 30 Twisters, 1% in., 1% in., 2 in., 2%, 2% in., 3 in., 2% Ring.

L GODFREY & CO. PROVIDENCE, R. I.

T. WILL PROVE

To investigate the proven merits of

THE HARRISON SAFETY BOILER

Before purchasing your steam plant.

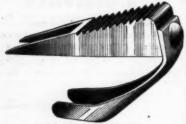
Address, Harris

rieon Safety Boiler Works, Southern 2 & 4 S. Pryor St.
Philadelphia, Penna. Office, Atlanta, Ga.

TO YOUR INTERES

Kelley's Patent Wrench Grip.

Neafly every meetanic who has to do with metal pipes has in mind the number of cumbrous and expensive special tools required to manipulate them. We would call the attention of this class to a little device about the size of a pocket knife, which can be slipped on to the jaw of any 12-inch monkey-wrench, and used for turning any pipe from † to 1‡ inches in diameter. This device is made from the best



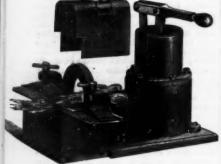
KELLEY'S PATENT WRENCH GRIP.

tool steel, is very strong and durable, perfectly adapted to the purpose, and just as reliable as any of the more expensive tools. It is warranted to give satisfaction.

As will be seen by the accompanying engraving, this simple little device can be used for turning any round object, such as pipe bars and stud bolts, etc. The fact that it does away with the cumbersome tools in present use and the readiness with which it can be disengaged makes the Kel ley wrench grip an invention that will be welcomed everywhere. Locomotive engineers and shop hands will find it a valuable addition to their tool chests. It is for sale by R. B. Thomas, 90 Chamber street, New York.

Band Saw Brazer or Joiner.

THE accompanying cut illustrates a new and most complete machine for brazing or joining band saws, all widths to two



BAND SAW BRAZER OR JOINER.

inches. It is manufactured by Frank W. Swett, 69 South Canal street, Chicago. Full instructions and directions go with each machine, and also material enough to braze a number of saws.

THERE has recently been designed for and laced in the great factories of the Robert Mitchell Furniture Co., of Cincinnati, a wood-working machine whose capacity for deep and wide cutting of mouldings is a rvel and the wonder of the mechanics and workers in wood. It will take a single plank of solid word, 14x4, of ash, oak or maple, or any hard wood, reducing it in one cut to a single moulding, cutting a depth of 3 inches with the main head, 2% inches with the lower and each side head, which up to this time has been considered impossible. The fertility of brains and resources of The Egan Co., of Cincinnati, solved a problem of long standing.

ADVERTISERS wishing to reach the manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium that the Manusacrusers' Recoan.

Hay Fork Pulley.

The hay fork pulley, which we illustrate in this issue, is manufactured by E. C. Stearns & Co., Syracuse, N. Y.

The object in designing this pattern has been to combine strength and durability in as inexpensive a manner as possible. That this has been done will readily be seen on examination. They have hardened chilled bearings, are strong and symmetrical, handsomely japanned and finished in the very best manner.

Another advantage is that the pin can be removed, permitting the rope to be adjusted in order to allow oiling.

Every pulley is carefully examined before packing, so as to insure perfect satisfaction to the purchaser.



HAY FORK PULLEY.

These goods could not be offered at so low a price were they not of a plain pattern and constructed in such a manner as to give great strength for the amount of material used.

For price address E. C. Stearns & Co., Syracuse, N Y.

A New Spinning Frame.

The new 1888 spinning frame, lately brought out by the Fall River Machine Co, has been entirely remodeled and radical changes introduced. These improvements have resulted in a saving of power, prevention of waste, requires less attendance and at the same time has a greater capacity for work.

In discribing this machine it will be noticed that that the power is applied in a different manner from usual, all other machines being driven from the foot, while in this it is applied at the opposite end, giving each part an independent movement, only the spindles being driven through the cylinder. In other machines all the parts are driven through the cylinder.

Another important feature is the "cap bar." This is put together in sections and held by pins, and is so arranged that the pins may be slipped back and any section instantly removed without disturbing the other parts. The advantage of this improvement will be apparent, as the bars of other machines are solid from end to end. An improvement has also been made in the traverse motion. This is connected to the back roll by a worm gear. On this gear, and cast with it, is a heart shaped piece. At a proper distance from the heart is an upright stand, the fulcrum of a lever which is attached to it. This lever ars near its center on the upright, one end or point resting on the heart, while a weight at the other end gives it the required pressure and effectively prevents all dwell or backlost, making a large sav-

ing to the top roll covering.

The fluted rolls are made from steel and burnlahed to prevent the lapping of broken

ends Smooth movement is secured by the use of cut gears on all new frames.

Full justice cannot be done these improvements in this short description, but those interested can obtain fuller information by writing the company at Fall River, Mass., or by calling at the works. They further offer parties intending the purchase of new machinery, who may desire to test the value of these frame, to set up a sample machine and remove it at their own expense if not satisfactory.

this is much superior to putting the guide or collar on the spindle, and will be found a great advantage and much safer for the operator.

Ne

machi Machi

which

It is

in tw

respect

and si

fisted

of the

All

gears

has sinew he pany, are ke

whole The

cut of

firmly

possibi

journa

east ste

It has

adjusta

The

the sh

which

while t

Allp

are nu

wire or

All 8

BCFEWB

standar

are ext

By m

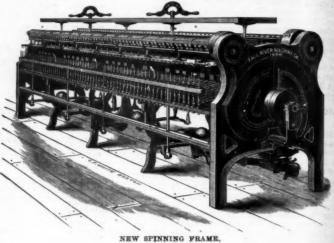
opening

The r

classes o

rolls an

The wheels for raising and lowering the spindles are in front, convenient to the operator, and the adjusting screws are operated by spiral cut wheels, which are the most accurate and reliable for raising and lowering a spindle of this kind. The table is of wood or iron, and is large in size. Rings are fitted in the table in cus-



Improved Double Spindle Shaper.

The accompanying illustration shows a new double spindle shaper, designed spe cially for great strength and strain, and arranged in such a manner that every part can be adjusted instantly with perfect accuracy.

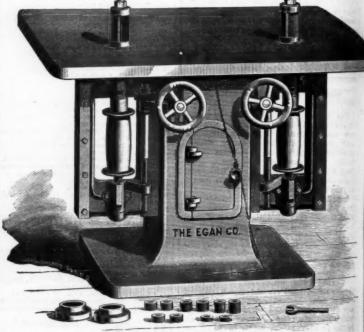
The improved frame is cored throughout, and has the box foot which makes it stand very firmly on the floor; the arms on which the spindles and boxes raise and lower, are cast in cored style on the frame, and are braced in the most scientific manner.

The spindles are of the very best cast

centric style, so as to allow a great varia-

Two sizes of this machine are made:
No. 3, with table 3½x4 feet, spindles 36
inches apart; the loose and tight pulley
on countershaft are 10x6 inches, and should
run 750 revolutions per minute, and No. 3½
with table 4x4 feet, spindles 28 inches
apart; the loose and tight pulleys on countershaft are 10x6½ inches, and should run
800 revolutions per minute.

For further information and prices, address the manufacturers, the Egan Ca, 228 248 West Front street, Cincinssi, Ohio.



IMPROVED DOUBLE SPINDLE SHAPER.

crucible steel, running in self-oiling boxes; the frame in which they are set raise or lower in gibbed slides which can be instantly adjusted to compensate for any wear. The bearings are very long, and are made on the most approved principle.

The bits used on this machine can be made any shape desired, either to run between slotted collars, or solid or slotted steel heads can be used. It has an improved guide set into the table, which revolves when the wood is pressed against it;

MANAGERS of mills, factories, firnaces, mines, etc., and parties starting
manufacturing enterprises, and needing machinery or supplies of any
kind, will find it profitable to consult
the advertising columns of the MANUFACTURERS' RECORD. Its pages
contain names of the best houses
the country among manufactures of
and dealers in machinery and supplies.

XIIM.

tooklyn

New Surfacer and Matcher.

Among the number of improved planing machines introduced by the Glen Cove Machine Co., Limited, of Brooklyn, N. Y., whose specialty is planing mill machinery, is a new double surfacer and matcher, which we illustrate in the accompanying engraving.

to the ews are lich are raising

d. The in cos-

varia-

made

dles 26

pulley

should

No. 84

inches

o com-

uld run

ces, ad-

n Co.,

cinesti.

It is their No. 11 machine, and is made in two sizes, 14 and 24 inches wide spectively, and each machine will match to its full rated width. The frame is heavy and substantial, all joints are planed and fued solidly together, and the total weight of the machine is 9,500 pounds.

All the shafting is of steel, and all the gears are cast from iron-cut patterns. It has six feed rolls, which are raised by the new hoisting device patented by this com pasy, and by which the rolls in each pair are kept absolutely parallel at all points, thus securing uniform pressure across the whole surface of the board.

The pressure-bars before and after the cut of the top and bottom heads are all adjustable. The cutter head boxes are firmly yoked together to prevent any possibility of getting out of line,

Each top and bottom head with its ornal, is forged in one piece from sol d not steel, and is slotted on all four sides. It has their weighed ohip breaker and adjustable pressure-bars above the matcher

The expansion grars are made fast to the shafts, which revolve in boxes, by which means they can be oiled at any time while the machine is running.

All parts of the machine, large and small, are numbered, so that any piece may be ordered by simply giving its number by wire or letter.

All shafts and fittings, including bolts, grews and nuts, are finished to U. S. standard sizes. The cutter-head pulleys are extra large.

By means of their newly-arranged end opening the under cutter head may be completely exposed in a moment.

The machine planes from a-quarter of an inch to eight inches thick, and will do all classes of work, from the smallest to its full apacity, with equal facility.

This machine is made also as a simple b'e surfacer, with two pairs of broken relis and sectional chip breaker before the

cut of the top head. The side spindles are provided with their improved ring attachment and a

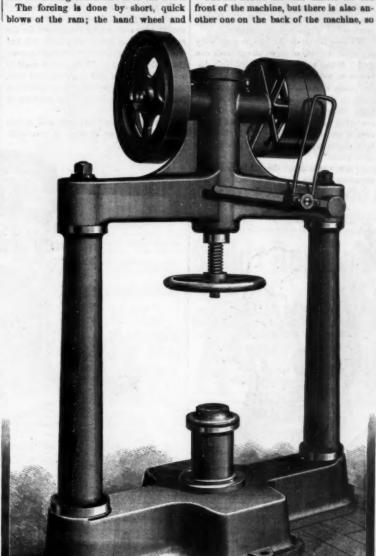
Mandrel Forcing Machine.

This machine is designed to be used in forcing mandrels into work of all kinds; also for driving Mandrels out of the work.

The forcing is done by short, quick

is exceedingly powerful. When the machine is in operation, one man cannot follow the mandrel wi h the hand wheel as fast as the ram will drive it in.

The cut shows the belt shifter on the front of the machine, but there is also an-



MANDREL PORCING MACHINE.

is furnished with three stands for holding the work, 6, 9 and 12 inches high, and 4 sizes of caps to go on the top of the stand for holding the mandrels. These caps are made of the following sizes: 1½, 3½, 3½ and 4½ inch hole, and the holes in the stands and the base being 5½ inches, the machine will receive mandrels from 14 inches up to 54 inches in diameter. Purther information can be had from Messra. Hill, Clarke & Co., 156 Oliver street, Boston, Mass.

The Turn of the Tide.

A gentleman was in the city yesterday who has during the past few weeks visited every county in the State. He gave a rosy view of the situation among the farmers, saving:

"The State is materially in bette: condition then for years past. The crop of 1887 was very economically made. Cotton sold well, and farmers, as a rule, paid up ad-vances far better than usual. There is still considerable money in the hands of the farmers and a good provision crop. Comparatively few liens have been recorded up to the present time, and the farmers s em determined to make the coming crop

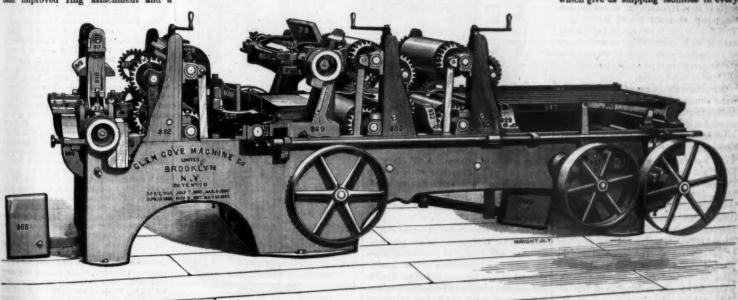
on their own resources as far as possible.

The purchase of fertilizers has been very heavy. The platforms of the various railway depots throughout the State are crowded with thousands of tons of cottonseed meal and commercial fertilizers, and some of the railroads have been taxed to the utmost to move the unprecedentedly heavy shipments. Much of the fertilizers have been purchased for cash. The mild winter has been favorable to

live stock, and horses and mules are generally in good condition for the hard work of the next few months. The farmers are working like beavers, preparing for and planting the crop of 1888, which, with a fair season, should be the heaviest and most profitable harvested since the war."— Charleston News and Courier.

IRONDALE, ALA., March 19, 1888.

Editor Manufacturers' Record:
Irondale is situated six miles east of Birmingham, at an elevation of 180 feet above that town. It has plenty of good freestone water, three main lines of rall-road now and one more that will be com-pleted in 60 days, and two short lines, which give us shipping facilities in every



NEW SURFACER AND MATCHER.

opper, to prevent any vibration in the

For further particulars address the Glen Core Machine Co., 24 to 30 Clay street, booklyn, N. Y.

was adjustable oil step, lined with hard | screw, shown in the cut, being used to fol- | that it can be used from either side. low the mandrel as it is being driven into the work.

The distance between the uprights is 36 inches; the distance from the base to the The ram has a movement of only ‡ inch, but makes from 175 to 200 strokes per minute, and from the nature of the blow travel or feed of 18 inches. Each machine

direction from our place. Irondale cannot be excelled by any place in the South for manufacturing, being surrounded by coal, iron, limestone and sand, and brown sand-

T. S. McDANING

any onsult

ANU-

pages ses in ers of mil

Schrankel's Patent Flexible Piston Rod and Elbow.

Heretofore it has been absolutely necessary where wells have exceeded 20 or 25 feet in depth to place pump standard directly over the well, so the cylinder would be in direct line with the standard above; but now Schrankel's flexible piston rod makes it possible to place the pump stand

each place.

ard where you wish without any reference to the well, as it can be separated hundreds of feet, if necessary, and still the pump will work no harder than if it was used in the old fashioned, undeviating way. Wells cannot always be located where they would be chiefly desired and most convenient for the user, as due consideration must be paid to the lay of the land, availability, etc.; therefore, it is no uncommon thing to find wells in most inconvenient situations, and the pump standard placed accordingly. This flexible piston rod can be used in any kind of wells, open, drilled or driven, and in connection with any kind of pumps of the reciprocating type actuated by manual, machine or wind power.

Oftentimes the owner of a fine spring of water situated at the foot of a slope has desired to utilize this water at his house or stable, but it has leen impracticable to do so on account of the spring being so much below and so far away from where the water was wanted that a pump standard could not be used over the spring, the alternative being to set a pump at the spring and force the water up to the house at considerable trouble and expenditure of muscle. All such conditions can now, however, be readily met and overcome with this flexible piston rod and an elbow of sui able angle. The standard can be planted at the top of slope with a short piece of vertical pipe extending down wards far enough to drip it, and then attaching the angular elbow, as shown in the illustration, extending the pipe to the spring down the hill with cylinder at its extremity and submerged in the water. The pipe should be protected against cold weather in all cases, as it is filled with water below the drip or waste hole.

Wind mills, while exceedingly useful and quite as necessary in agricultural economy rocating motion.

as the reaping machine, are not the most sightly objects, yet, notwithstanding, they are always found directly over a well if over 25 feet deep. Now the mill can be placed where most agreeable to the taste or eligible for the wind without once weigh ing the situation of the well, for that is rendered of secondary importance.

We also illustrate the unique possibility of supplying two or three pumps from one Water need not be carried long distances or wells be multiplied, as formerly, for pump standards can be set here and there on the premises, at the house, stable, barn, dairy, etc., all pipes and cylinders centering in the one well, as shown in our sketch, and a most complete, effective and economical supply of water be procured at

A few words as to the mechanical construction of this flexible piston rod and

There is ample room on each side of these rollers and straps for the water to pass up in its ascent to the standard, the effort required in the operation being no more than in ordinary pumping.

The manufacturers recommend the use of 1-inch gas pipe for piston rod in the hori zontal pipe connecting the elbows, for the reason that it is lighter than solid rod, and will sustain its weight with less ang between the roller sockets. These roller sockets are made of brass and iron, and roll back and forth in this pipewith trifling resistance, thus contributing to the easy working of the pump.

They are of small expense, and should be used every 8 or 10 feet. It goes withfilled with water, and a few motions of the lever brings it to the spout, and at the same time kee s the joints of flexible rod well lubricated.

well lubricated.

There is, in our opinion, absolutely noting about this flexible rod that can war out or cause trouble. All parts a e male of cast iron, brass and steel and well stited toge her, and we feel assured that it will be the means of introducing pumps under conditions that have been hitherto insumountable, and so perform a most useful service.

wountable, and so perform a most uservice.

We have secured from the patent exclusive con rol of his valuable in tion for the whole United States, and prepared to furnish them at reason prices from factory or through branches at New York, Chicago, St. L. These flexible piston rods have all been used in several instances to the

W. R.

Stem E

PATENT

GAS

KE

Mint Pool Outlin for The them Internal Met of Compete Settles on Proof of Settles Inc.

CHAT



UNIVERSAL MILLING MACHINE.

elbow will be of interest. A 90° elbow, of which two will be required where the top of the well and the bottom of pump standdard are situated in the same horizontal plane or nearly so, is made of cast iron, about two inches square ins'de, in cross section, with slotted ears at either side of each end for bolting on the gas pipe connections, into which the connecting pipes are screwed In an elbow of this description, for a six-inch stroke pump, the flexible rod consists of 6 2 inch turned iron rollers,

fitting elbow at top and bottom to prevent PIG. 2. buckling. These rollers are connected toout saying that they are not needed in the gether by brass straps or links, with steel shafts passing through their centers, forming axes for the rollers, the links being of proper length to permit them and the roll ers combined to follow the curve of the

elbow as the pump lever imparts the recip-

out saying that they are not included vertical pipe.

The manufacturers say "long experience has taught us that the cylinder should in variab y be submerged in the water, as the pump is then always primed, and in using these elbows we prefer to have the water wasted just above the elbow nearest the standard, all the pipe below that being

gratification of their purchasers, and them will be in operation all over the country, because the demand for them has been the purchasers and pressure and pressure and the purchasers are purchasers and the purchasers and the purchasers are purchasers are purchasers and the purchasers are purchasers and purchasers are purchasers are purchasers and purchasers are purchasers and purchasers are purchasers and purchasers are purchasers a

long been urgent and pressing, and the absence has long been regretted."

Further particulars can be had from the manufacturers, the Goulds Manufacturing Co., of Seneca Falls, N. Y.

New Size Universal Milling Machine.

The accompanying cut is a represention of the new No. 2 Universal milling machine, manufactured by E. E. Garvis & Co., of New York. This size is a meabetween the large and small size generally used. It is small enough to be handy, and well proportioned for doing heavy work with accuracy and speed. The extra heavy arm, together with the outboard center, are especially designed for rigidly surpairing the arbor while making heavy cut is out from the face of machine. This could be conterned to the same and style center, and consists of a tool steel play driven into the yoke. A ‡ inch straight of the arbor; it is hardened and ground out a standard size; being split through its center, allows taking out the wear free the top. Provision is made for end thrust and for the expansion of the arbor, This straigh of center, he lately heap adouted in the conterned the strain of the paper adouted in the conterned the strain of the paper adouted in the conterned the strain of the paper adouted in the conterned the strain of the paper adouted in the conterned the strain of the paper adouted in the pap center, allows taking out the wear methe top Provision is made for end thrustand for the expansion of the arbor. This style of center has lately been adopted all size milling machines made by the company. The dividing head is the standard style made by this company, and been fully described in these columns. Taction of the feed is independent of the angle of the table, which ranges 45 degree each way. The feed is by worm and government of the standard way. The feed is and hardened, as is thrown in and out by small hands which are made of steel and hardened, as is thrown in and out by small handshown projecting through block. The gears for spirals can be quickly set up. The adjustment, both vertical and transcribe, are arranged with dials reading a thousandths of an inch. This machine solidly built throughout, with ample being surface and means for taking up with the manufacturers, Messra. E. E. Garden Co., 189-143 Centre St., New York Co., will give any further particulars desired.

Cor. Wyandot St. & R. R. DAYTON, O. -

J. O. Joyce's Pat. Lever Jacks Compound Lever

AND SCREW JACKS.

50 varieties of Lever and Screen Jacks for railroad use.
Please send for illustr. catalogue

The WEI LINGTON BELT HOLDER.



LATELY IMPROVED. Just the thing to shift large belts driving

when machine steps. Thous-ands in use, cost very low. Sent on trial. Permit us to quote you prices.

W. R. SANTLEY & CO. Wellington, Ohio.

h will pay you to write to WILLIAMS ENGINE

ENGINES,

In my duty. Electric Light Engines a specialty. (talky high. Prices mederate. Address WILLIAMS ENGINE CO. 447 North Street, Baltimore, Md.

Sten Engines, Boilers, Steam Pumps,

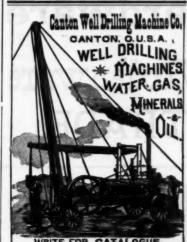
Eclipse Fan Blowers, Tire Benders, manfactured; all guaranteed. Also, the LANDIS PATENT STEAM RADIATOR supplied. Address the LANCASTER STEAM PUMP & MACHINE WORKS, Lancaster, Pa.

AGENTS WANTED for Lord's Boiler Campound. A chance for engineers and men on the road. Also local agents with means. State present occupation. Address GEO. W. LOBER, 316 Union Street, Philadelphia, Pa.

Joyce, Cridland & Co. HOOSIER BRICK MACHINE.



Soft and Stiff ClayBrick Machines. NOLAN, MADDEN & CO., RUSHVILLE, IND.



FOR THE LATEST IMPROVED

GAS WORKS APPARATUS AND HOLDERS.

KERR-MURRAY MANUFACTURING CO., FORT WAYNE, IND.

WITHOUT STEAM POWER

seemstand wood Workseemste with steam power.
Inches a trial if desired.
I

and the ands of ver the nem has

om the

ling

milling arvin d a mean enerally ady, and ry work ra heavy

sur port-cuts for 'his ou-of an old seel plug straight bearing ground bugh the air from d thrus, r. This opted on by this ne stand-



Barnes' Pat. Upright Drills 20-inch Swing, with both Worm and Lever Feed.



tsburg Pipe Works.

IST IRON GAS&WATER PIPE

South Pittsburg, Tenn.

WARREN WOOD & CO. IIS Broadway, N. Y.

OHATTANOOGA FOUNDRY & PIPE WORKS.

M. LLEWELLYN, Secy. as C. B. IBESTER, Vice-Prest. en to B. GELMS & CO., Chat



Also Castings and Patterns of Every Description made to order.

LATHE HEADS.



FOR WOOD OR IRON TURNING.

STRONG, STIFF, SUBSTANTIAL.

Steel Arbors and Screws, Emery Grinders and Gear Cutting Attachments.

Progress Engine & Machine Works

M. C. R. R.

SUMMERFIELD, MD.

Build Repair Your Machinery



Engine Lathes, Planers, Chucking Lathes, Hand Lathes,

MACHINE TOOLS GENERALLY

LATHE&MORSETOOL CO. Worcester, Mass., U. S. A.



17, 24 & 27-INCH **Engine Lathes**

THE MULLER MACHINE TOOL CO.

8th and Evans Streets,



Drill Presses, Shapers, Band, Circular and Saws, Machinists' Tools and Supplies. La on trial, Catalogue mailed on application 182 West Second Street, CINCINNA. CINCINNATI. O.



BRADLEY'S UPRICHT CUSHIONED & HEATING FORCES HELVE HAMMER

With a manufacturing experience of over half a century, we recommend these machines to be the best, simplest, most durable and combining all the essential elements.

BRADLEY AND COMPANY, SYRACUSE NEW YORK

Laundry

Largest Stock. Latest Improvements. Fullest Line.



Washing Machines,
Ironing Machines,
Contrifugal Machines,
Mangles, Wringers, etc.
BOILERS AND ENGINES.

Hotels and Public Institutions -A SPECIALTY.-

DOLPH CO. The A. M.

Cor. 9th St. and Freeman Ave, CINCINNATI, 0.

KREHL, HAUSER & CO., GIRARD, O.

TANNERS OF OAK LEATHER.

THE F. F. ADAMS CO., ERIE, PA.

MANUFACTURERS OF A LARGE AND COMPLETE LINE OF

Household Articles



Hardware Specialties





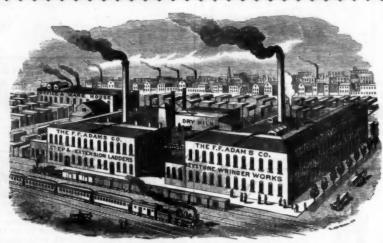
Hardware

-AND-

Woodenware TRADE.

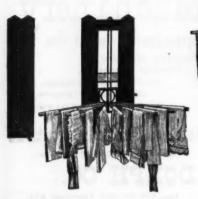


Clothes Wringers,
Dryers, Horses, Step
Ladders,
Mouse and Rat
Traps,
Cork Pullers, Lemon
Squeezers,
Bread Cutters,



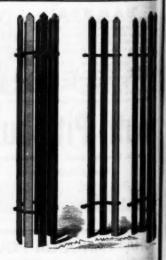
Common and Extension Ladders, Iron
Tables, The Adams
Swing, Trucks,
Hurley's Automatic
Steam Flue Cleaner,
Lawn Sprinkler,
Socket Rakes,
Patent Tree Box,

TO THE TRADE.





WE have added a number of New AND USEFUL HOUSEHOLD ARTICLES AND SPECIALTIES to our already Large Line of Goods. They are all very Salable. We want a live dealer in every city and town of the South to handle our full line of specialties. Write now and secure terms and exclusive agency in your town or city. We will make it interesting for you. Address,



THE F. F. ADAMS COMPANY

ERIE, PA., U.S.A.

HEAVY STEEL

-AND-

IRON PLATES

CYLINDERS

FOR SCREENING

Ore, Coal, Stone, Phosphates, Etc.

REVOLVING SCREENS,

ROUND AND HEXAGON



GRIZZLIES

Placer

Mining.

Battery Screens

Of all Kinds and Sizes.

MINING SCREENS

For all Kinds of Ores

Cotton-Seed Oil Mills, Rice Mills, Sugar Houses, Distilleries, PHOSPHATE AND FERTILIZING WORKS

Elevators, Malt Kiln Floors, Grain Dryers, Threshers, Separators,

Corn Shellers, and all kinds of Grain Cleaning Machinery; also for Mining and Concentrating Works, Coal, Coke and Ore Screens, Gas and Water Works, Paper, Woolen, Flour and Oil Mills, Filters, Strainers, Ventilators, Etc.

THE HARRINGTON & KING PERFORATING COMPANY, Special attention given to work for Railroads and Car Builders. Perforated Tin and Brass of all Sizes. Main Office and Works, 224 and 226 North Union Street, Chicago CORRESPONDENCE SOLICITE Iron, Steel, Copper, Brass and Zinc punched to any size and thickness required.

extendron dams, actic aner, sox, sox,

Rome Land Company ROME, CA.

M

SYNOD

ar-who

this cor

Industri

charter

of ten y in the yielding Coal is TH facturing actual se State.

F all the growing cities in the growing South, Rome presents the greatest opening for money-making investments, with surrounding fields as rich as the lands of Goshen, with exhaustless deposits of brown and red Iron Ores and Manganese immediately at hand on all sides, with mountains of Marble and Limestone coming right up to the city, with an abundance of the best Coal easy of access, areas of untouched forests, and with seven railroad outlets and two navigable rivers, Rome stands, in natural advantages, pre-eminently above any other proud and pretentious city within the limits of this proud and ambitious commonwealth.

The HEALTH OF ROME is unsurpassed. The unusually low death rate is a phenomenon, standing without a peer at 8.40 per thousand. one case of catarrh or consumption exists or ever originated within her limits.

Rome has 12,000 inhabitants, has invested in colleges and school buildings about \$300,000; in church building over \$100,000; in her new hotel \$125,000; in the dummy line, just completed, over \$50,000. Her manufactories employ 800 hands; with other enterprises now going up. Her system of water-works and sewerage is unsurpassed. The city is lighted with gas, and negotiations for an electric light plant are now pending. highways leading to the city are all well macadamized. The Post-office Department has recently made Rome a free postal delivery office. The annual business of the city is about \$12,000,000, with the trade constantly increasing. The yearly range of temperature at Rome, between the average highest and lowest, is about 84 degrees; the mean temperature is 60.6 degrees. About seven months intervene between the first and the last killing frosts of the year. There is no better society to be found anywhere.

The Rome Land Company (J. W. Rounsaville, President, T. F. Howell, Treasurer, and J. L. Bass, Secretary and Business Manager) will donate ample grounds to and otherwise aid, any worthy manufacturing enterprise that may locate here.

Send for circulars and pamphlets.

THE ROME LAND CO., ROME, CA.

ALABAMA'S GREAT

which, according to statistics, is the MOST HEALTHFUL CITY IN ALABAMA, and the County Seat of Talladega County.

THE CITY HAS A POPULATION OF 5,000, AND ITS POPULATION IS RAPIDLY INCREASING.

ALLADEGA is on the main line of the E. T. V. & G. Railroad, the A. & A. Railroad, and is the present terminus of the T. & C. Railroad. Work is rapidly progressing on the Birmingham & Savannah Air Line Road, between Birmingham and Savannah, and within twelve months this road will be completed via Falladega from Birmingham Savannah, which will place Talladega on the direct line from Birmingham to deep water on the Atlantic, making

With a scholastic population of 500, and THE MOST COMMODIOUS AND ATTRACTIVE PUBLIC SCHOOL BUILDING IN THE STATE. The main building is a three-story brick, slate roof structure, well ventilated, heated by steam; has accommodations and seating capacity for 500 pupils. This school is owned and sustained by the city. All branches of English literature, foreign languages, music, the sciences and art, are taught for a nominal tuition. Among other educational institutions are the following:

SYNODICAL FEMALE INSTITUTE, Property valued at \$50,000.

D. D. & B. INSTITUTE, Property valued at \$150,000.

BLIND INSTITUTE, (in course of construction,) property valued at \$150,000. FOSTER COLLEGE, property valued at \$150,000.

No other city in Alabama has so many educational institutions and so many public buildings.

The stand pipe has a capacity of 175,000 gallons, and into this reservoir a supply of fresh, clear, pure water is pumped every by from a large spring located in the heart of the city, which discharges over 2,000,000 gallons per day. The gravity pressure from this system is 90 pounds to the square inch in the business portion of the city. The city has broad streets, well madamized and shaded with beautiful trees, and is well lighted with a SUPERIOR QUALITY OF GAS. Sixty fire plugs and bry gas lamps protect against fire and illuminate the streets.

A LARGE FURNACE PLANT gives employment to thousands of hands, and makes a high grade of chilled ar wheel iron from ores, limestone and coal within ten minutes haul by rail, or an hour's haul by wagon. FOUR LARGE LUMBER MILLS, with an aggregate daily capacity of 200,000 feet of lumber, cut from the long-leafed yellow Pine of this country. FOUR BRICK YARDS are in active operation. A SASH, DOOR and BLIND FACTORY, a FOUNDRY, MACHINE SHOP, FLOUR MILL, COTTON-SEED OIL MILL, and various other industries are in successful operation, and the TALLADEGA ICE CO. cools the thrifty population with pure ice at 50 cents are insuccessful operation, and the TALLADEGA ICE CO. Another large furnace plant will be completed within the next ten months. A Spoke and Handle Factory and many other tidustries are projected, with a view to early completion.

Taxable property has increased 100 per cent, within the past twelve months. The rate of taxation is limited in the city darter to half of one per cent., and the city offers an exemption from taxation to all manufacturing enterprises for a period of ten years. The county of Talladega supplies more crude material, in the way of minerals and timber, than any other county the State. Almost within the corporate limits of the city are extensive deposits of the highest grades of limonite ores, ding 50 to 58 per cent. metallic iron, with only a trace of phosphorus, and limestone abounds in the greatest abundance.

Coal is within twenty miles by rail.

THE TALLADEGA LAND & IMPROVEMENT CO. owns 5,000 lots suitable for residences, business and manufacturing enterprises and liberal inducements offered to acturing, in and adjacent to the city. Lots are donated to manufacturing enterprises, and liberal inducements offered to actual settlers. SPRING LAKE PARK is owned by this company, and it is being made the most attractive resort in the state. The lake covers an area of seven acres, and is a beautiful sheet of clear spring water. Parties seeking a healthy dimate, free from malaria and epidemics, and a prosperous city, are invited to visit Talladega. Address for maps, etc.

Talladega Land & Improvement Co.,

for

hen, y at the

and

ges, oud

LS &

oout

nmy ther

The

The

has

bout

e at ture

osts

irer,

and

ATENS, East Tennesser

THE COMING

→Iron and Manufacturing City of the South. ←

Athens is the county seat of one of the most fertile counties in East Tennessee. The health of the city is unsurpassed, and is ABSOLUTELY FREE FROM ALL MALARIAL OR EPIDEMIC DISEASES. The surrounding scenery is very fine. From the main avenue the while valley of East Tennessee can be seen, from the Cumberland Mountains on the west to the Great Smoky Mountains on the east; some of the peaks east of the Rockies being in full view. Fine Mineral Springs are adjacent and are popular summer resorts. The society of Athens is east lent. A cordial welcome is extended to all law-abiding people locating in the town. The EDUCATIONAL FACILITIES are good. Beside public and preparatory schools, Athens is the seat of THE GRANT MEMORIAL UNIVERSITY, which has an enrollment of over 300, and whose graduates include some of the most distinguished citizens in the country. Among the industries and institutions of the place in active operation are:

THE ATHENS BUILDING & LOAN ASSOCIATION, \$250,000. THE ATHENS WOOLEN MILLS, \$100,000. THE FIRST NATIONAL BANK, \$50,000.—To be increased at once.

FOUNDRY & MACHINE SHOPS, \$25,000.

FURNITURE WORKS, \$15,000.

FLOURING MILLS, \$20,000, etc.

THE D

\$1,0 Louisvill Charcoa A seven

A one h The Dec The Am

Ivens &

Morse C Southern

Decatur

Berthard

The Dec

The Tell The Alai Brush E

The Iron The St. I Howland Heymeye Four Ma

经

E.

500 men are now at work on the new railroad from Athens to the

RICHEST IRON FIELDS IN THE SOUTH

JUST EAST OF THE TOWN.

Only eight miles from Athens are VEINS OF RED FOSSILIFEROUS ORE 11½ FEET THICK, and 4 to 12 miles beyond are THE LARGEST DEPOSITS OF BROWN ORES IN THE SOUTH. The ores of both varieties, in addition to being inexhaustible, are both superior in quality to any ores of either variety at present mined in the South. An assertion that can be sustained. Coke can now be obtained at the lowest prices, and in addition a new railroad is now projected to the Cumberland Coal Fields, only 22 miles distant. These roads will give Athen UNSURPASSED SHIPPING FACILITIES. The road under construction will penetrate large deposits of Tennessee Variegated Market also an Unopened Timbered Region, and will develop the

Largest Colored State Deposits in the United States.

These quarries are now being opened, and are pronounced by experts Absolutely Inexhaustible, and equal in quality to the finest Vermont Colored Size

The ATHENS MINING & MANUFACTURING CO.

Have alone just contracted for the erection of over

\$500,000 IN NEW MANUFACTURING ENTERPRISES

At Athens, including a 100-ton Blast Furnace, cost \$200,000; Cotton Mills, cost \$150,000; Furniture Works, employing 200 men, cost \$100,000; Hotel cost \$60,000; Water Works, Street Car Lines, &c. These improvements have been commenced which, added to other improvements projected, will add

\$1,000,000 OF NEW MANUFACTURING ENTERPRISES TO ATHENS.

The company desire to open correspondence with parties desiring to locate, and will extend liberal inducements in addition to gifts of sites order to induce New Manufacturing Enterprises to locate in Athens. City property is doubling in value every few months, and at present low prices beyond question a very fine investment.

The Athens Mining & Manufacturing Company,

R. L. BRIGHT, President.

R. J. FISHER, Secy. and Coni. Mansg

Offers outside investors better inducements to locate than any other

№CITY IN THE SOUTH.

She has few equals and no superiors in the South.

There have been located at Decatur in the last few months the following Industries:

THE DECATUR LAND, IMPROVEMENT & FURNACE COMPANY. Has 50,000 ACRES of Iron, Coal, Mineral and Timber Lands.

Valled States Rolling Stock Company's Plant, from Urbana, Ohio, \$1,000,000.

Louisville & Nashville Railway Construction Shops, \$300,000.

Charcoal Company's plant, costing \$120,000.

A seventy-ton Charcoal Iron Furnace, costing \$190,000.

A one hundred-ton Blast Iron Furnace, costing \$225,000.

The Decatur Iron Bridge Construction Company; cost of plant, \$100,000.

The American Oak Extract Company's plant, costing \$60,000.

hens & Sons Steam Boiler and Engine Works, costing \$100,000.

Morse Cotton Compress plant, costing \$60,000.

Southern Horse Nail Company, \$100,000.

Deatur Lumber Company, Saw and Planing Mills, costing \$50,000.

lethard & Co., Sash, Door and Blind Factory, cost \$15,000.

The Decatur Street Railway Company.

The Plumbers' Supply Co., \$25,000.

The Telephone Company.

The Alabama Lumber & Fruit Package Co.

Brush Electric Light Company, cost \$10,000.

The Ironton Wheelbarrow Company, cost \$25,000.

The St. Louis Investment Company, \$200,000.

Howland & Co's Water Works System, costing \$200,000.

lleymeyer Artificial Ice Company, cost \$10,000.

four Mammoth Brickyards.

Jones, Poley & Co's Lumber Yards.

The Hoosier Mills & Building Company.

The Gate City Sash & Door Company.

Decatur Car Wheel & Construction Company; \$60,000.

Arantz Bro's Mills and Lumber Yards.

Grant & Co's Furniture Factory.

Decatur Carria e Company.

Southern Lumber Company. H. S. Freeman's Mills and Lumber Yards.

The Alabama Farmer's Friend Fence Machine Company.

The Decatur Artificial Stone Company.

Decatur Chain and Architectural Iron Works, capital \$100,000.

Natural Gas Company, capital \$200,000.

First National Bank, capital \$100,000.

The Exchange Bank of Decatur, capital \$100,000.

Merchants' Insurance Company, capital \$100,000.

Decatur Building Association, capital \$300,000.

Decatur Building Company, capital \$1,000,000.

Buchheit's Bottling Works.

Decatur Printing Company.

Two daily papers, three weekly papers.

Two hotels—one \$100,000, completed, and one \$300,000 being built; the largest in the South.

Grand Opera House, \$100,000.

Locating here, and contracts are being made with some of the most extensive industries in the United States.

Decatur is the Healthiest city in Alabama, the death rate among whites for 1886 being only 11 in 1,000.

E. C. GORDON, President. H. G. BOND, Vice-Prest. and Gen. Manager. W. T. MULLIGAN, Secretary.

This Company has been pre-eminently successful in promoting the interests of the city of Decatur.

CORRESPONDENCE SOLICITED WITH PARTIES SEEKING LOCATIONS.

XUM

are both ed at the Athen Marble:

e THE

TEL

000,000

c.

H

; Hotel will add

GADSDEN, ALA

"The Hub of the Mineral Belt."



IRON

AND



City in Alabama with River Transportation.

THE GADSDEN LAND AND IMPROVEMENT CO.

Own large tract of Eligibly Located Residence Property in the Most Desirable Part of the City, and have fine location on river and railroad for

-MANUFACTURING ESTABLISHMENTS,

And are offering great inducements to manufacturers to locate their plants in this FAVORED LOCALITY. No place in the South has such Wonderful Advantages. Situated in the midst of the RICHEST IRON SECTION in the State, at the foot of Lookout Mountain on the banks of a Navigable River (THE BEAUTIFUL COOSA), surrounded by Forests of the Finest Timber on the Continent, with Fine Building and Fire Clay, and the FINEST BUILDING STONE all around us, with

Uninterrupted Health, and the Purest and Best Water, and Finest Drainage of any City in the State,

GREATEST MANUFACTURING CENTER OF ALABAMA.

The Alabama Great Southern, Rome & Decatur, Tennessee & Coosa, Anniston & Cincinnati Railroads, with the ever flowing Coosa, navigable the year round, gives us as FINE TRANSPORTATION FACILITIES as any other city enjoys.

We now have Railroad Car Works, Furnaces, Foundry and Machine Works, Saw Mills, Sash, Door and Blind Factory, Furniture Factory, Ice Factory, Paint Mills Grist and Flouring Mills, Cotton Ginnery, Fine System of Water Works, Electric Lights, Telephone Communication over City, and also to neighboring cities, Atlanta and Rome, Ga.

WE WANT Rolling Mills, Bridge and Bolt Works, Cotton Factories, Woolen Mills, Furnitum Factories, in fact all kinds of Factories, even Coffin Factories, (but we want to ship the Coffins to some of the other booming cities.

Liberal Grants of Land will be made by The Gadsden Land & Improvement Co., to any of the above-named industries.

FOR FURTHER PARTICULARS ADDRESS

M. L. FOSTER, Sec. & Treas.

THE GADSDEN LAND & IMPROVEMENT CO.

Post-Office Box 145.

GADSDEN, ALABAMA.

THE (
which no
init up a
of the lar
cester, wa
old name,
he the bu
starts off
of a high

LC Cro

TI

for the Reliand

facilitie their w buildin

Mr. . L, has : sell who

the pur the sam work.

by hand on a tri also, we prespec

A VE

manufac Co., De

Specia high, we exert as will hav 14x18x8

"MAN South," trated p R, Atla little hascenes a battle of

ists goin & A. R. centerin way place ing. Se general

THE V

William tract wi Clearfiel proved They hav Fetter, o chinery Thought concern their gas

TRADE NOTES

The Jeffrey Manufacturing Co , 121 West State street, Columbus, Ohio, report a large devating and conveying machinery for the onth. The demand for their Mey-Oborn chain is rapidly increasing.

Owing to the rapidly increasing demand for the Rel'ance Safety Water Columns, the Reliance Gauge Co., of Cleveland, Ohio, who had already greatly increased their facilities, have found it necessary to enlarge their works. They have leased a four-story building at 836 Sheriff street for a term of d put in steam power as well as iderable new machinery.

MR JOHN HEATHCOTE, of Providence, R. L has secured the right to manufacture and sell what is now known as the Duggett gin, for the purpose of ginning Sea Island cotton; the samples shown exhibit the best kind of work. They will make machines to work by hand or power. Mr. Heathcote is now on a trip in the South for pleasure, but will also, we presume, be a close observer of its prospects and progress.

A very large Perfection brick press is in course of construction at the works of the manufacturers, Messrs. C. W. Raymond & Co., Dayton, Ohio, to be designated the "Special No. 3" It will be about five feet high, weigh about 1,200 to 1,400 pounds, and exert an estimated pressure of 20 tons. It will have a capacity for blocks as large as 14x18x8 inches. Its special mission is for pressing large panels in ornamental and terra cotta; also for heavy blocks and tile in re-brick works. Several are already ordered.

in the

State.

e ever

Aills,

iture

"MARIETTA, GA., the Gem City of the South," is the title of a handsomely illusmted pamphlet issued by the W. & A. R. R, Atlanta, Ga. It describes the pretty little health resort of Marietta, and the sens and incidents relating to the great lattle of the Kennesaw Mountains. Touras going either North or South via the W. A.R. R. will find much of historic interest centering around Marietta-a sort of halfmy place for a few days' rest and sight-seeing. Send your address to Jas. M. Brown, general passenger agent, and receive a copy

THE Williamsport Machine Co., Limited, Williamsport, Pa., have just closed a conmet with the Clearfield Lumber Co, of Clearfield, Pa., for a complete outfit of imoved sash, door and blind machinery. They have also received an order from Jacob Fetter, of Milton, Pa., for an outfit of madisery for his new mill. The Happy Thought planer and matcher made by this tern is having a large sale, as are also heir gang and ripping machines. In fact they are so crowded with work that they we had to add considerable new machinery a order to supply the demand for these pois. The public, when in need of such machinery, would find it to their interest to correspond with them as to price and de-scription of same.

THE Crompton Loom Works, under which name the late George Crompton bult up a large and profitable business, one of the largest and most important in Woronier, was last week incorporated under the same. Its business, as heretofore, will bethe building of textile machinery, and it tars off with large orders and the promise if a highly successful year. Since Mr. ampton's death, in December, 1886, the niness has been conducted under the ad-nistratrix of the estate, Mrs. Mary C. n. The corporation has a paid up of \$550,000. The stock is held by Trumpton family and a few of the late

ager, Horace Wyman; secretary and treas nrer, Justin A. Ware; directors, M. C. Crompton, I. M. Crompton, Charles Cromp-ton, Horace Wyman, W. W. Rice, Justin A.

DR. H. H. MALONE writes: "In summing up the advantages of Brewton, we find that it is naturally situated for becoming a com mercial center; that it is located in the midst of the finest timber region known, and has the facilities for bringing these timbers to its very doors; that it has both water and rail transportation to Pensacola, and rail transportation to the South, North and West; that it offers to capitalists the finest opportunities for safe and paying investmen the erection of cotton and woolen mills, or factories of any kind in which the use of a large variety of hardwoods enter; that it is noted for health, pure water, good schools, churches, morality and excellent society: that it is surrounded by cheap lands, adapted to the culture of all kinds of fruits, vegetables and farm products; that its citizen are desirous of welcoming a substantial immigration, no difference from what part of the country, and note with pleasure the investments of capitalists, and the opening of new enterprises in their midst." For further information as to Brewton, see advertisement in this issue, or write for pamphlet to Dr. H. H. Malone, Brewton, Ala

A. H. FRANK, of Buffalo, N. Y., formerly of the concern of Frank & Co., manufacturers of wood-working machinery, has disposed of his interest in that business to J. F. Stro hecker, F. A. Parmenter and P. Steingoetter. These gentlemen will conduct the same line of business, and as Messrs. Parmenter & Strohecker were actively engaged with Messrs. Frank & Co. for a number of years, and are practical mechanics, all orders entrusted to em will be executed with great care and skill. The present firm retains the old name of Frank & Co., and can be found at 178 Terrace St., Buffalo, N. Y.

E & F. N. SPON, New York, will on April 2d remove from No. 35 Murray street to No. 12 Cortlandt street. In their new location they will be in the midst of civil, mechanical and electrical engineers, and close to many of the principal dealers in engineering supplies, and will be only a few doors from Broadway. This firm both pub-lishes and imports scientific books, and makes a specialty of issuing books relating to mechanical, mining and electrical engi neering.

THE Gould Manufacturing Co. of Senec Falls, N. Y., have recently brought out a full line of spraying pumps and garden Engines. This fact will be hailed with delight by thousands of horticulturists and farmers, as it makes the destruction of insect foes a possible thing. With a Gould spraying pump, brass hose pipe and sprinkler or Gem graduating spray nozzle, successful warfare can be waged against aphis, curculio, cotton worms, etc. Send for catalogue, which gives cost of the outfit and directions as to how to use same.

THE Empire Wringer Co., of Auburn, N. Y., who make a specialty of manufacturing clothes wringer machines are full of business at present, and to meet the demand for their goods are operating their factory to its fullest capacity. The trade on these machines has increased very greatly recently and they now have large orders in hand,

JOHN E RANDLE & Co, of Memphis, Tenn., proprieto s of the Chickasaw Iron Works, have recently largely increased their facilities, adding machinery for the manufacture of cotton-seed oil and other heavy machinery. They have been for several years engaged in making architectural iron Mr. Crompton's business associates. The work with a constantly increasing trade, and firm of the corporation are: President, are turning out work in this line, which in LC Crompton; vice-President and man-design, quality and finish, as well as price,

compare favorably with that of any other ern in the country. Those in want should give them a trial.

THE improved variable friction feed saw mill, manufactured by the De Loach Mill Manufacturing Co., of Atlanta, Ga. is having such a sale as to require the running of the shops of the campany day and night in order to supply the demand for it. Orders for this mill have been received from all parts of the country, and it finds a ready sale from New York to Texas and from Florida to Illinois.

THE high favor in which the improved Fishkill Corliss engine, manufactured by the Fishkill Landing Machine Co., of Fishkillon-the-Hudson, N. Y., is held by those who have used it, is demonstrated by an order received March 10th by the company from the United States Rolling Stock Co., 35 Wall street, N. Y., for two engines, 500 horse-power; also eight boilers aggregating 600 horse-power, for their new works at De-catur, Ala. This is the third order the Fishkill Landing Machine Co. have filled for this company, having previously supplied two engines for their extensive works at Hegewisch, Ill., and have also built two engines for the company's shops at Urbana,

THE city of Cincinnati has contracted with the Laidlaw & Dunn Co., of that city, for two Galloway boilers, 7x28 feet, with a 48-inch by 150 feet chimney, to furnish 600 horse-power for their water works. The amount of contract is about \$11,000.

THE well-known Davidson steam pump, nanufactured by the Davidson Steam Pump Co., 77 Liberty stret, N. Y., is meeting with great success in the electrical field, and is being installed in a large number of electric stations. Mr. Lamphear, 51 Oliver street, Boston, the New England sgent for this popular pump, reports business as "very

Important.

When visiting New York city, save bag-gage express and carriage hire, and stop at the Grand Union Hotel, opposite Grand Control Deposit

Central Depot.

600 handsomely furnished rooms at \$1 and
Eleva-

600 handsomely furnished rooms at \$1 and upwards per day. European plan. Elevators and all modern convenience.

Restaurants supplied with the best. Horse cars, stages and elevated railroads to all depots. You can live better for less money at the Grand Union Hotel than any other first-class hotel in the city.

SOME one has truly said there is but one American House and that is in Boston There is never any deviation in the management, and the result of minute attent on to the details is shown in the splendid system and discipline that prevails throughout the hotel.

THE Palace Hotel, Cincinnati, Ohio, is the best, finest furnished and most complete \$2.00 hotel in America. 250 rooms; 140 front rooms. Complete fire apparatus and iron balcony fire-escapes.

If you have occasion to visit Lowell, Mass., and want comfort and attention in the most convenient locality of the city, try



Mechanic BOOKS Relating to Mechanical, Mining and Electrical En-gineering. EF Descriptive Catalogue and information about any book

E. & F. N. SPON

JOHN WILEY & SONS, 16 ASTOR PL.

Scientific and Industrial Works.

Send for Catalogues and Circulars-Free by mail.

FOR THE BEST -

BOILER COMPOUND.

THE INTERNATIONAL MFG. CO.

280 Pearl St., CLEVELAND, OHIO.



Ajax Engine on Cornish Botler. A.R.FARQUHAR,

For the Latest Improved FAST FEEDING

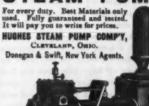
Planing Mill Machinery.

Preble Machine Works Co., CHICAGO, ILL.

ENGINE BOILER

Morris Machine Works. BALDWINSVILLE, N. Y.

PUMPS STEAM





THE MARKETS.

OFFICE MANUFACTURERS' RECORD, BALTIMORE, March 28, 1888.

The heavy rains throughout the South have to some extent interfered with business, more especially through the interruptions to farming and building operations. Business on the whole, however, moves along in good shape, and with all prospects very encouraging for a season of much ac-

Manufactured iron is dull at former prices.

WIE:			
Ref. Bar Iron, z to 6x34 to z	B.D.	1.95	S. IOC
" " I to 4% XI% to I	68	1.950	8.10C
" " 16 to s, round and		-	
square	88		8.800
Hoop Iron, 11/4 wide and upward	88	a.50@	3 C
Band Iron, from 11/4 to 6 in, wide	68	9.40	8.60C
Horseshoe Iron	48	2 X @	3 C
Norway Nail Rods	61	3140	4%C
Black Diamond Cast Steel	88	814.0	9%c
Machinery Steel	44	1 4	434C
Spring Steel	66	116	4 C
Common Horse Nails	68	1 0	0 0
Railroad Spikes, 51/429-16	44	2×0	
Steel Boiler Plate	68	*K&	4 6
Iron Boiler Plate	66	.44	
Boiler Tubes	62 Nd	& KE OF	I lint.

The demand for pig iron and steel rails remains without any change worthy of special mention. The output of iron has very largely decreased since January 1st, but this lessened production has not yet had any influence on the market. We quote as before,

Baltimore						
Baltimor	e ore)	******	******	fal	00@29	00
Virginia C.						
Authracite						
44						
60	** 3	*******		16	00@18	00
66	Mottled :	and Whi	te	34	00015	00
Old Rails	********			33	50@83	00
Old Steel F	tails			99	00@43	00
No. I Wron	ight Scrap			23	5000-	_
Old Car W	heels		******	18	80619	50

HARDWARE.

The demand for hardware is not as active as it has been for the past few months. Prices are unchanged. Orders for spring goods are larger than usual. The demand for screen door and window frames is good, and the present indications are that large quantities will be sold. Strap and T hinges are still very low, and no immediate prospect of an advance in prices. The Wheeling Hinge Co. have also added this line of goods to their already large assortment. The orders for tacks are confined principally to full-weight goods, and but few cut-weights are being sold.

Nails are quoted nominally at \$2@2.10.

Philadelphia Iron Market.

PHILADELPHIA, March 27, 1888. The Eastern Pennsylvania iron trade has not improved, in consequence of the number of uncertainties surrounding it. Brokers

and furnace owners say they have been selling only small lots of iron during the past week; they are unable to make any further inducements that would lead to the placing of orders in a large way. A few inquiries have been made during the past week for 1,000-ton lots of forge iron, and the best prices for ordinary makes are \$16.50. Buyers are willing to buy in a large way, but only at 50 cents below bottom prices, Some makers express the opinion that prices will improve 25 cents within thirty days. There is scarcely any margin in iron, and the idle Schuylkill Valley furnaces see no inducement to resume work. The bar iron mills are running slack, but with the anticipation of having big orders for car iron. Con iron is selling at 1.80, medium 1.90, refined nominally at 2 cents. An improvement in business is expected as soon as a vote is taken on the tariff bill.

The nail makers report business dull at \$2 to \$2.10. The plate iron makers have prospects for an active business, but a great deal of plate, tank and general iron business is being held back. The locomotive builders are all crowded with orders. The Pennsyl vania and Reading Companies have given out large orders for engines, and we hear

this week that some of the Southern re are now in the market for engines, and that orders will soon be placed. The railway companies will be good buyers of material of all kinds this year.

Nothing is being done in foreign material. Spiegeleisen is \$27.50; old rails, \$21 to \$22; but few lots are selling. Bridge plate, 2.10; beams, 3.30. The structural iron mills are fairly busy.

Cincinnati Iron Market Report.

Specially reported by Rounns, Bnown & Co., Pig

CINCINNATI, March 26, 1888.

In spite of apprehensions about what may happen, it is a fact that a good round volume of business is being done in Pig Iron in Western markets. Many profess to feel lack of confidence in the market and buy only for immediate delivery. Many of the largest buyers, on the other hand, think prices are low and engage iron freely for the future. Apart from the steel industry it is difficult to see that there has been any actual decline in consumption of any of the leading lines. Rolling mills, joobing foundries, architectural works, car works and agricultural works, with occasional exceptions here and there, were never more busy than now. The complaint is about prices. are undeniably weak, and decline is already so great as to compel the stoppage of a good many furnaces as shown in the monthly re-With much further decline there would be such a wholesale stoppage as to quickly bring production decidedly below consumption, and make a turn in prices. High grades of car wheel irons are perhaps in most urgent requestmend are becoming very scarce. We quote for cash f. o. b. Cin-

	BO	T-BLAS	T POL	MORY.			
Ohio and	Southern	Strong	Cok	No. 1.	.#19	00019	50
86	0.0	66	44	No. a	-	006	-
Ohio Sof	t Stonecos	d,		No. I.	. 19	00019	50
Mahonin	g and Sh	enango	Vali	ey Coke	, 10	00@20	00
Hanging	Rock Ch						
Tanness	e & Alab	ma C	NO. 8	l No -	. 91	00(893	00
t ennesse	11	ima Ci	86	No. s.	. 18	50@19	50
		1	FORGE				
	eutral Co	co			\$16	50@17	60
Mottled					. 15	00@15	25
Cold Sho	ortnings	*****		******	. 15	50@16	00
	CAR WI	TERL A	ND M	ALLEAD	LE.		
Southern	Car-Whe	el Iron			. 22	50@24	93
Hanging	Rock Col	d Blas	t		. 24	00@25	00
Lake Su	perior C. V	V. and	Malle	mable	. #3	00924	99

Louisville Iron Market.

Specially reported by Gso, H. Hull & Co., Com-mission Merchants for the sale of Hot and Cold mission Merca. Blast Pig Iron.

LOUISVILLE, Ky., March 26, 1888. The market has remained quiet, with few sales. Furnaces don't seem to be anxious to realize. Straight offers made about 50 cents off the market have not been accepted. Old materials remain dull with few sales

We quote:

		FIG	Harris.					
Coke	No.		46			17	25@18	35
Rock	Coke	No.	z F	oundr	Y	18	75@17 75@10	75
Char	coal,	No. I	Fou	ndry.		10	256001	25
Coke	No.	z Mil	l, N	eutral	****	15	75@16	75
Char	coal,	No. I	Mill			-		-
Car V	Vheel	stan	dard	branc	is		756093	75
Rock	Cold	Higgs				-	-	-
	Rock Charay, di Coke Charad Mot Car V	Rock Coke Charcoal, ay, differen Coke, No. Charcoal, d Mottled, Car Wheel	Rock Coke, No. Charcoal, No. x ay, different grac Coke, No. z Mii '' ' ' ' Charcoal, No. x d Mottled, different Car Wheel stan	Rock Coke, No, z F. Charcoal, No. z Foundary, different grades Coke, No, z Mill, No. z Mill de Mottled, different g Car Wheel standard Car Wheel standard Rock Cold Blass.	Rock Coke, No. 1 Foundry. Rock Coke, No. 1 Foundry. Charcoal, No. 1 Foundry. Coke, No. 2 Mill, Neutral " I " Cold Si Charcoal, No. 1 Mill. d Mottled, different grades Car Wheel standard brane other brands.	Rock Coke, No. 1 Foundry Charcoal, No. 1 Foundry Charcoal, No. 1 Foundry coke, No. 2 Mill, Neutral "" Cold Short. Charcoal, No. 1 Mill. Neutral "" Cold Short. Charcoal, No. 1 Mill d Mottled, different grades Car Wheel standard brands other brands other brands	Rock Coke, No. 1 Foundry. 18 "Charcoal, No. 1 Foundry. 19 "Charcoal, No. 1 Foundry. 19 ay, different grades. 15 "Coke, No. 1 Mill, Neutral. 15 "" I "Cold Short. 15 Charcoal, No. 1 Mill d Mottled, different grades. 14 Car Wheel standard brands. 18 " other brands. 19 Rock Cold Mass.	Rock Coke, No. 1 Foundry 18 75@19 " Charcoal, No. 1 Foundry 19 25@11 Charcoal, No. 2 Foundry 19 25@11 ay, different grades 15 75@16 " 2 " Coke, No. 1 Mill, Neutral 15 75@16 " 2 " Coke Short 18 25@16 Charcoal, No. 1 Mill

Chicago Iron Market.

ted by Rogers, Brown & Co. W. ent Agent.

CHICAGO, March 26, 1888. Most of the foundries in Chicago and the Northwest are more actively employed as the spring advances, and, notwithstanding a disposition to delay purchases, a good deal of iron is constantly called for, and business of local dealers is what might be called

good. There is a gradual settling of prices of nearly all grades, and many of the furnaces that look to this market are beginning to complain that it is a losing business. At st Ohio furnaces shipping soft iron to this market are seriously contemplating blowing out. There is no material change in Lake Superior irons, which continue the firmest feature of the list. We quote for cash f, o, b. cars Chicago: COME AND STONE COAL FOUR

	COMB	AND ST	OM M CO	AL FOUR	DET		
Ohlo (H	angine	Rock)	Softener	s No. 1	tro.	750000	78
94 101-			44	44			
er Tar	-keon	nous new	66				30
** 1	be one	and oin	Acr 66	**	30	OCCUPANT.	00
Court book	Cabo	And CIR	ner	***	79	000000	00
Southern	Coke	, No. s	******	******	18	300010	00
**		No. 8		******	18	000018	50
**	**	No. 3	******	*******	17	300318	90
			DAL POU				
ake Su	perior.				99	softes.	90
outhern				*** ****	20	oodlax.	00
Hanging	Rock		*******			1000	-
				ALLEADL			
ake Su	perior.	*******			90	soffee.	00
tandard	South	ern			92	andles.	nn.
fanging	Rock	, cold bla			95 1	maker.	-
**	44	warm	blast	***	99	andless.	-
outhern	, cold	blast		*******	84	200000	8
			MATERI		-		-

St. Louis Iron Market.

Specially reported by Roseas, Brown & Co., Gay Building, so4 N. 3rd street, St. Louis. W. H. Shirilds, Manager.

Sr. Louis, March 26, 1888.

The week has been a little more quiet than formerly, but still a fair run of business has been realized. The recent reduction in Birmingham rates has helped some, but prices continue to yield but little, for even the best located furnaces. Unless consumption falls off it is thought that a reaction in prices must set in, as nearly all furnaces are heavily sold.

ij	Southern 18 00@19	
1		*
	COAL AND COKE IRONS.	
-	Southern 18 00@18 9	şt
1	Ohio Softeners 20 50@ez	je
	MILL IRONS.	
1	Southern 26 00⊕27 0	×
	CAR-WHEEL AND MALLRABLE IRON.	
-	Southern	×
	Lake Superior	ю
1	Connellsville Coke. (East St. Louis)@ 5 1	13

Silica Graphite Paint.

DUBABLE AND BEAUTIFUE.
Unaffected by heat or cold, dampness, salt air, ru
e vea acids. For smoke stacks, boiler fronts, toofs, or metal work, this Paint is far superior nything made. For details send for circulars. Joseph Dixon Crucible Co., Jersey City, N. J.



Blacking POURDRY Pitanorii & Smin o 000

FACINGS

Salesmen in stove and hardware line, tan eling in the South, to represent us on commi-sion. Less than two pounds of sample Good men can make good income. Address MUNSON LIGHTNING CONDUCTOR CO., Indianapolis, Ind.

ELIAS EDMONDS

SAN ANTONIO, TEXAS.

Makes the Litigation of Land Titles a specialty. Will also Lend Money for meresidents upon the best real estate security.

strated catalogue and full parti-

DE LOACH MILL MFG. CO., ATLANTA,GA

Look Carefully through this paper and you may find an advertisement of some machinery or other goods that you are in need of. Preserve this copy for future reference



- special "Quarter-turn" bein Chas. A. Schieren & Co. MANUFACTURES 47-51 Ferry Street, NEW YORK

Testimonial from MAGINNIS OIL AND SOAP WORKS. Office No. 111 Magazia

Mess. Charles A. Schieren & Co., 47 Ferry Street, New York, N. Y.

Dear Sirs:—On June 4th process. Mess. Charles A. Schieren & Co., 47 Ferry Street, New York, N. Y.

Dear Sirs: —On June gith you sent us 88½ ft. of 73 in American Leather Linklet,

½ inch link, which has been running on a ½ turn pulley since that date. We have
used for a number of years a great many other styles of belt, and have found sue
able to stand the work longer than six months. We are glad to testify that kis
given entire satisfaction, and we shall continue to replace other belts in or mi
with your Link Belting.

Yours respectfully, ctfully, CHAS. B. MAGINNIS, Sec.





FACINGS lacking

OUNDRY

TERRITA

Smin 6

OHIO.

NTA,GA.

h this

ind an

ie ma-

ls that

eserve rence.

ELT.

YORK

Link list, We have found non that it has in our mil

IIS, Sec.

.

The VICTOR TURBINE

Pessesses more than Double the Capacity of other Water Wheels of him 18.06 17.96 18.21 17.90 11.66 same diameter, and has produced the Best Results on Record, as shown in the Following Tests at Holyoke Testing Flume:

WITH PROPORTIONATELY HIGH EFFICIENCY AT PART-GATE.

Such results, together with its nicely-working gate, and simple, strong and durable construction, should favorably recommend it to the attention of ALL discriminating purchasers. These wheels are of very Superior Workmanship and Finish, and of the Best Material.

THE VICTOR WHEEL IS PARTICULARLY ADAPTED TO SETTING ON

HORIZONTAL SHAFT, Disponsing Entiroly With Gears. STILWELL & BIERCE MFG. COMPANY

DAYTON, OHIO, U.S.A.



EHRET'S BLACK DIAMOND

CHEAPEST, BEST AND MOST DURABLE.

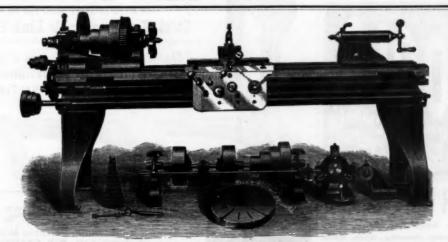
Ready for use, and anybody can put it on. New descriptive circular just out containing price-list, references and directions for putting on. Agents wanted. Manufactured only by

EHRET, JR., MI_ Ö

ST. LOUIS.

PHILADELPHIA.

CHICAGO.



INICHOLSON & WATERMAN, Providence, R. I.

Sigourney Tool Co.

HARTFORD, CONN.



Spindle

STRONG AWD-

Workmanship UNEQUALLED.



al Machinery, Tools, Models Built by Bay or Contract.

ABBOTT& THURBER OLEAN

SPECIALTY. ALL SIZES

Patent Ouick Return

LATEST IMPROVEMENTS.

Bickford Drill Co.

Cor. Front and Pike Streets. CINCINNATI, O.





SAUNDERS' SONS, MANUFACTURERS OF THE ORIGINAL

Pipe Cutting and

Threading Machine.
BEWARE OF IMITATIONS.
ne genuine without our Trade
Mark and name. Also Patent Wheel Pipe Cutter

STEAM AND GAS FITTERS' HAND TOOLS.

Pipe Cutting and Tareading Machine For Pipe Mill Use a Specialty. Send for Catalogue B.



Steam Engines, Shafting,

Hangers, Pulleys, etc

MACHINERY, CANNING

The Warfield Manufacturing Co.

338, 340, 342 NORTH ST. - - BALTIMORE, MD Green Com Cutter.

Consider of the Consider of th

Plymouth, Pearl, John and Adams Sts.

OFFICE: 17 Adams Street.

BROOKLYN, N. Y.

Presses, DIES

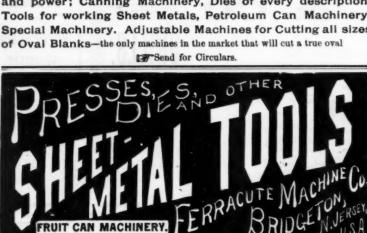
.........

FOR

Sheet Metal Workers

Cam Toggle and Drawing Fresses, Power Presses, Foot Presses, Automatic Drop Presses for Forging and Stamping, Double Seaming Machines for round, square and oval work, Circular Shears, hand and power; Squaring Shears, foot and power; Canning Machinery, Dies of every description, Tools for working Sheet Metals, Petroleum Can Machinery, Special Machinery. Adjustable Machines for Cutting all sizes of Oval Blanks-the only machines in the market that will cut a true oval





OHIO.



Heavy Double Machine.

Power Cushioned

HAMMER.



PHOSPHOR-BRONZE

INGOTS, CASTINGS & MANUFACTURES.
THE PHOSPHOR BRONZE SMELTING CO. LIMITED

512 ARCH ST. PHILADELPHIA PA. U.S.A.

ORICINAL MANUFACTURERS OF PHOSPHORBRONZE IN THE UNITED STATES AND OWNERS
OF THE U.S. PATENTS.

Manufacturers Machinery for Shearing Metal in all its Various Forms.

POWER SQUARING CIRCLE SHEARS POWER SLITTING SHEARS.

POWER CHOPPING SHEARS.

For Tack and Nail Plate, and for Cutting Steel for Cutlery Works.

OFFICE AND WORKS: Superior, Cor. Randall Street.

BUFFALO, N. Y.

Send for our complete Illustrated Catalogue and Price List, and Mention this Paper.



For Coal, Phosphate, Tan, Ore, Stone, &c.

BURR & DODGE. 123 & 125 M. 5th Street,

PHILADELPHIA, PA. Link Belt Machinery Co., Chic

R. SWORMSTEDT & CO. MILL FURNISHERS

MANUFACTURERS' AGENT FOR THE Steel Key Detachable Link Belting,

For ELEVATORS, CONVEYORS and TRANSMISSION of POWER Shafting, Pulleys and Hangers a Specialty. OFFICE AND WAREHOUSE:



MILL STONES BOLTING CLOTHS

Awis, Brand Brand, Brand, Brand, Brand, Brand, Lawer, Brand, Lawer, Brand, Lawer, Brand, Lawer, Awis, Awis,



Baltimore Mill Furnishing Works,

Mill Stones, Roller Mills, Portable Mills, Pulleys, Shafting, and Mill Gearing. Import Bolting Cloths, and General Mill Furnishers.

B. F. STARR & CO.
North and Center Sta., Baltis



WARING & SONS. 106 & 108 Liberty Street M. T.

Complete Pulverizing Plants Furnished.

Fertilizer Machinery, Mixers' Rolls, Breakers, &c., Railways, Clay Temperers. Send for Catalogue.

JAMES MURRAY & SON, 102 to 108 York Street, Baltimore, Md

210	
→ HARDWARE. ←	7
Baltimore WHOLESALE Prices	
Pagis and Vulcan	
ADBRES AND BITS. Coan. Valley Mig. Co	
Espanive Bits, Clark's swall, \$18; large, """ dia 35 Espanive Bits, Ive" dia 45 Espanive Bits Hale's \$50 and \$50 dia 45 Espanive Bits Hale's \$50 and \$50 dia 45 Eslew Anger, Ponglass' dia 55 Eslew Anger, Donglass' dia 55 Eslew Anger, Donglass' dia 55 Esl. Ang., Onespan's Adjust, \$60 \$45, dia 56 Esl. Ang., Vest' Expansive, each \$4,50, dia 56 Esl. Ang., Vest' Expansive, each \$4,50, dia 56 Esl. Ang., Vest' Expansive, each \$4,50, dia 56 Esl. Ang., Utst' Expansive, each \$4,50, dia 56 Esle dia 55 Es	
Seving Brass Ferruse	
Awis, Sewing, Common	
Collins & Co	
Bailon & Co., iron	
Hand, Light Brass dis 90 s	
Sizismith's Common	
Funci: dis so f Nativell's \$\psi\$ dos pairs \$1.00, dis so f Vas Sand's Screw Pattern, \$15 \$\psi\$ gross, netdis 60 \$\fo\$ Vas Sand's Old Pattern \$15 \$\psi\$ gross, netdis 60 \$\fo\$ Vas Sand's Old Pattern \$15 \$\psi\$ gross, dis \$5 National's new list, net Linserman's, 105 in \$\psi\$ gross \$30.00 Linserman's, 10 in \$\psi\$ gross \$30.00	
BLIND STAPLES. Barbed, % in. and larger	l
lugail & Loud	
BOLTS. Cut Irea Barrel Shutter, &c	
Section dis poètro 5 tot Rade and Lag Screws dis poètro 5 BORAN. 50 \$ B ast.	
G. Backus dis 90 5 state dis 90 5 st	
BORING MACHINES—WITHOUT ADBRES.	

OM

er.

0.

RS

ARS,

reet,

&C.

PA.

RS

g,

MD. LL

NES DHE THS

rks,

leys,

LS,

M. Y.



The GLEVELAND BLOCK GO. CLEVELAND, OHIO, Are much STRONGER, LIGHTER, MORE DURABLE and CHEAPER than all others taking same size rope? No extra charge for our new Self-Lubricating Bushings in our Heavy Purchase and Wire Rope Blocks. Send for List.



No. 4— 5-foot run, \$15.00 per dozen pai:
5—10 " " \$15.00 " "
6—15 " " \$21.00 " "
Sieci Track in 4, 6 and 8-feet Lengths, 10 cents per foot.

WHEELBARROW



THE BRYAN MFG. CO., Bryan, Ohio.

	Shelf, pinis
	New listdia 75k10 S
	Union Not Co. dia 35 S Sargent's dia 60km 5 Humason, Beckley & Co's dia 90 S
6 d.	Wrought Brass dis 50 S Cast Brass, Loose Joint dis 25 S Cast Brass, Loose Joint dis 25 S Past Joint, Marrow dis 60kg S Past Joint, Broad dis 60kg S Loose Joint dis 60kg S Loose Joint dis 70kro dis 60kg S Loose Joint dis 70kro dis 70kro S
	Wrought Brass
-	Fast joint, Narrow die pet Fast joint, Lt. Narrow die pet Fast joint, Broad. die pet Loose Jeint, Broad. die pet Table Butts, Back Fisps, det. die pet Intide Blind, Regular. die pet Intide Blind, Light. die pet Loose Pia, Wrt. die pekt g Spring Hingse- die pekt g Spring Hingse-
•	Inside Blind, Regular die 1988 Loose Pin, Writ die 2008 Loose Pin, Writ die 2008 Loose Pin, Light die 2008 g Spring Hingse- die 2008 g Spring Hingse-
	Geor's Spring and Blank Butts
	BOW PINS. Humason, Beckley & Co'sdis 51kg 5 Sargent & Co'sfsp.yo and st.qe; die 66kso 5 Hoschkissdis ag 5 BUTCHER'S CLEAVERS.
	Humason & Beckley Mig. Co
	CAN OPERENS. American. Now Idea. No. 5, French. No. 5, Iron Handle. By Goo St.a., die 35 5 No. 5, Iron Handle. By Goo St.a., die 35 5 Braque. No. 1, Se No. 1,
5,	
)	U. M. C., F. C. trimmed
	Rim
	Name List on Cartainess St.
ı	Cotton, new list, Aug, 1883
	Cast Steel, Points
, T	Pasters de grande de grand
433	Sarpent'sdis pos
	German Halter and coll Chain
	CHALE. White
	Cotton Fish Lines
	COSTON LINES. COSTON LINES. COSTON LINES. Coston Chalk Lines, so fast; Nos. 0, 1, 9, 3, gn. so 5 CRIBRIA. Socket Framing, Crossmans. Socket Framing & Firmer. Socket Framing & Firmer. Socket Framing & Firmer. Socket, Douglass Socket, Ohio Tool Co. 7985 798 Socket, Corner. Tanged Firmers, Douglass'. Lines 1, 100 100 100 100 100 100 100 100 100
	Iron, Screw, Rage Iron, Adjustable, Stearns' Iron, Cabinot, Sargent's
	Norway or Best dis Selle # Superior dis Selle # Sup
	Racking, new list
	Parker 1

50	7
Compasses dis 2002 di	Saz
Compasses dis 70krs 5 Calipers dis 70krs 5 Dividers dis 70krs 5 Cook's Pencil dis 20 \$ COOPERS TOOLS.	66
firadiey'sdis 15@ao ≤ Barton'sdis so €	
Cast Steal	Hai
%, %, % in., \$1.80, 2.00, 2.50	Wa Kip Yer
CURRY COMBS. Fitch's new list	
Silvered Glass	Jap'
Association (Table). Haugstock Cutlery Co	Surf Flus Lifti Saw Lipp Han Brac
Rmbossed Gilt	Chis Aug Aug Pate
Torrey's Rod, regular size	Pate Pate Whi
Middlesex Mfg. Co. dis 75 % Crossman's No. 1. dis 65&5 g Nobles Mfg. Co. dis 15 % Bradley's. dis 35 % Adjustable Handle. dis 30 % P. S. & W. dis 75 %	Cron
Douglass DBILLS AND DRILL STOCKS.	Cron Barn Barn Clima Warr Rich Ridd Para Smith
Dover	Unde Price Shing Claw Lathi
EMERY AND EMERY PAPER. Regular numbers	Hami Blood Hunt Russe
EMAMBLED AND THRIED WARR. Ketties	Gem. "Ligh Wads
Door Lock. Same discounts as Door Locks Brass Thread. dis 60 \$ Wood. dis 25 \$	Blind She She
Fenn's	Huf Star Star Gate I She Plate
Western File Co. dis 60&to 5 Butcher's \$4.50 to 5 Mous & Gamble \$4.50 to 5 Mous & Gamble \$4.50 to 6 H. Diaston & Sons (new list) dis 60 % Heller Bros. Horse Rasps dis 30&to 8 § % Nicholson seedis 50, 75&to 8 New American dis 60&to 5 Union File Co dis 60&to 5 Stubs, new list \$7.50 to 2, 95 ≰ off	Plate "Prov Screw and S Crown for doos Crown Crown do Bickfo Ameri A. M.
Knox, 6-inch Rolls \$4.00 each \$\) \$\) \$\) \$\) \$\) \$\) \$\) \$\) \$\) \$\)	Heavy Screw Wrong Standa
Lawson & Breniser	dis. Plante Rivete Grub. Hick's
Burnished list as follows	Hick's Hubba Axe, F
Marking, Stanley's dis 60 5 Marking, Chapin's dis 60 5 Wire dis 20 5 Wire, Disston's dis 20 5 Wire, Wheeler, Madden & Co dis 20 5	Ausabi Plair Finis Clint's
Mail and Spike	Easex, Putnar Sarana Globe, N'thw Phoesi Champ Forg A. C., C. B.
	K.

MANUFACTU	R
GRINDSTONE PIXTURES. Sargent's Patent	1
GUN WADS. Elsy's B. E. wads, 11 upwards	
" P.E. " 11 upwards 2.5 " " 9 and 10 3.6 " " 8 4.4	15 K
Maydoos's dis so Hartford Hammer Co. dis 498 tro Warer's Tack, Nos. 1,8,5,7 p6 1,50 and 1,94dis 30 Warner & Noble's dis 30 Kip's or Selsor's dis 30 dis 30 Kip's or Selsor's dis 30 dis 30 Kip's or Selsor's dis 30 dis	***
Yerkes & Piumb	
HARMERS. Maydole's. HARMERS. Maydole's. Hartford Hammer Co. dis solt to work. Mayore Tark Nos. 1.8, 2, 76 1.50 and 1.74. dis 90 Karner & Noble's. dis 90 Karner & Noble's. dis 90 Karner & Noble's. dis 90 Karner & Hamber Co's New List.— Hammers. dis 90kro. Hartford Hammer Co's New List.— Hammers. dis 90kro. Sledges. dis 60kro. Mason and Spalling Hammers, &c. dis 60kro. Handles.—Door or Thumb Latches. Nos. 0 1 3 4 Hartford Hammers. Nos. 0 1 3 4 Hartford Hammer Co's New List.— Hambers.—Door or Thumb Latches. Nos. 0 1 3 4 Mayore Golden Gol	
Jap'd Store Door Handles—Nuts, \$1.62; Plate, 1.10 so Plate Barn Door Wrought Chest dis 65&10; Wrought Chest	
Surface Chest.	
Flush Chest. dis 55kro	٧
Patent Auger, Juse	ı
White Mountain, per dox. \$37.00 Finished in red, per dox. \$35.00 HANGERS.	1 4
Croak Hanger Co.— No. 4, per doz. pair	1
Anti-Friction Barn Door Hanger, \$ 000 per Goz., \$000 to \$Asti-Friction Barn Door Hanger, \$ 000 pair, \$ 500 net Cronk's Pat. Wire Cutter and Bender, \$ in., \$ 5.00 & 40% Cronk's Pat. Wire Cutter and Bender, to in., \$ 100 km \$ 100 k	
# dos. pair	1
Richard's dis so s Ridder dis 50 s Paragon dis. 4" to 40% to 5 Smith 40 s	w
Underhill's	pla
Gem	
Blind Hinges— Shepard's "Noiseless" (Nos. vo. 60, 65 and 55)	-
Shepard's "Niagara" Gravity	ŀ
Humers	
Huffers. dis sock to \$Standard Lull & Porter dis 70% to \$\footnote{Standard Lull & Porter dis 60 to \$\footnote{Standard Lull & Porter dis 60 to \$\footnote{Standard Lull & Porter dis 60 to \$\footnote{Standard Lull & \$\footnote{S	sho
for solid doom, single action, dis 45 %; for solid doors, double action, dis 55 %. frown Screen Door Latch	RE
dos \$9; 3-inch, \$1s	P.
nox14, \$48; No. 2 Japan \$41.00 dos; No. 2 Galv. \$22.00 dos.; No. 2 Galv.	THO
leavy Welded Hook { \$\mathre{8} \mathre{8} \mathre{1} \mathre{1} \mathre{1}, 50 \mathre{1}	Ms
No. 2 Galv. \$22.00 dor.; No. 236 Galv. \$35.00 dor. dis so 5 \$35.00 dor. dis so 5 \$35.00 dor. dis so 5 \$35.00 dor. dis \$4 in. & up. \$6 \$2 to \$5.00 dis \$4 in. & up. \$6 \$2 to \$5.00 dis \$5 in. \$2.50 dis \$5 in. \$2.5	III (
	Cott Bric Gra Han
Innters	rate
HORSE MAILS. usable: Nos. 5 6 7 8 9 10 Plain, \$ 531c s8c s6c s9c s4c s3cdis so&ro \$	Hen
mable: Nos. 5 6 7 8 9 10 Plain, \$\ \) Do 310 s8c s6c s9c s4c s3cdis sokto 5 Plain, \$\ \) Do 310 s8c s6c s9c s4c s3cdis sokto 5 Finish'd \$\ \) Do.310 s8c s6c s9c s4c s3cdis sokto 5 Hint'n, Pin'd' s4c ssc s1c s6c s9cdis sokto 5 Hint'n, Fin'd' s4c ssc s1c s6c s9cdis sokto 5 Hint'n, Fin'd' s4c ssc s1c s6c s9cdis 36 utnam " s7c s4c ssc s1c s6c s9cdis s6k 5 utnam " s6c s3c s1c s6c s9c s4c s3cdis s6k 5 hobe, " s6c s3c s1c s6c s9c s8cdis s6k 5 hobe, " s6c s3c s1c s6c s9c s8cdis s6k 5	
aranac "s6c s3c s1c s0c 19c 18cdis s0 \$ lobe, "s6c s3c s1c s0c 19c 18cdis 10ft \$	_



THE MOST PERFECT LITTLE CUN OF THE ACE For Small Game, Gallery, Target Practice and Snap shooting it is unrivalled. It is light, durable and safe. Weight 5‡ pounds. The ammunition is cheap—100

ts for 50 cents. For circulars giving full description and price, also for "IDEAL

NEW HAVEN, CONN.

Part I Part Cal Speak Con S

Perris Report Shapes Carria Base-Human Shutts Makina Makina Makina Owi T Covi T

Acres Linen Wire (

Cabine
Cabine
Cabine
Cabine
Trunk,
Yale L
Plate...
Branfo
Norwel
Norwel
Norwel
Norwel
Norwel
Norwel
Norwel
Norwel
Rallo
Rallo
Mallo
Wan
Winnick
Wan
Romer
Consists
Minick
Minick

America
Dizzon's
Perry's
E
Wasedru
Halen'.
Beef Sh
Stabblina
Stabblina
Schloiden
Stabblina
Chair's
Self-Mean
Lincoln's
Warel's
Self-Mean
Lincoln's
Perfection
Perfection

Squan N Hanges Wathers Ent and State and Malmahi Per dome Autor Pla Croys Pl

DRILLS

Etc.

anufacturers' Agents 🕯 Sale of Complete Outfits in Machiner,

At Manufacturers' Prices, to Fully Equip the Following Plants:

Spoke, Hub and Handle Factories, Incline Plane and Cable Railroads, Flouring and Feed Mills, Soap and Candle Works,

In and Coal Sievators, Soap and Cantele Works,

id, Steam and Hydraulic Passenger and Freight Elevators, Dumb Waiters. Also, Stea
Apparatus, Arc and Incandescent Electric Light Plants and Electric Motors.

Construction Drawings furnished with all outfits free of charge. Personal superintendence at
s when desired. Correspondence solicited. Send for prices. Address all communications to

THOMAS V. HALL & CO., Mechanical and Constructing Englice: Bates Block, West Ninth St. CHATTANOGGA, TENN.

chen, President. Edward M. Vossler, Vice-President. John A. Lesch A. LESCHEN & SONS ROPE CO.

IRON STEEL

903 & 905 N. Main Street.

ST. LOUIS, MO.

HORSE SHORE.
Here Shoes. \$4.10 % keg here Shoes. \$4.10 % keg here Shoes. \$4.10 % keg here Shoes. \$5.10 % keg here Forged Horse Shoes. \$5.00 % keg
Pauls Mule Shoes
frog Pressure 55.00 % keg Called 55.00 % keg Special 50.00 % keg S
Petitis Horse Shoes
CE CREAM PRESERS.
squart, \$6; 10 quart, \$12. Giant, with fly wheel, -14 quart, \$20; 18 quart, \$25; 21 quart, \$20; 25 -14 quart, \$20; 10; 10; 10; 10; 10; 10; 10; 10; 10; 1
Perinsa—3 quart, \$4.50; 4 quart, \$5.50; 6 quart, \$7; iquart, \$9. 10 quart, \$1.50; as quart,
Ingle action a quart for ag : a quart
Crown, double action, with crank, 8 quart, \$10.30; 10 quart, \$13; 14 quart, \$16.30; 18
iquart, \$13; 10 quart, \$16; 14 quart, \$10; 14 quart, \$20; 18 quart, \$25; 24 quart, \$30; 30 quart dis 60 \$
987, double action, s quart, \$3.75; 3 quart, \$4.50; 4 quart, \$5.50; 6 quart, \$7; 8 quart, a sequart \$11; 14 quart, \$7, 8 quart, do sequart \$11; 14 quart, \$14.
Gm, double action, s quart, \$3.75; 3 quart, \$4.50; 4 quart, \$5.50; 6 quart, \$7; 8 quart \$4.50; 12; 14 quart, \$4.50;dis 65 \$
Open, mages accessed by the second se
Carriage, (Jap'd 80 c % gross)dis 60&10 % Base-Common
Benacite Door Knobsnew list, dis quag & Door Mineral Door For. Jap'd
Binacets Door Andrea Same discounts as Door Locks.
Homacite, Picturedis 35 \$
Sheller, Porcelatil
Making & Skim'ng, Monroe's Pat. \$4 dox \$4dis 55&xo5 Making, C & Cdis 30&xo4 LANTERNS.
Owi Tribular, \$\Psi\$ dox\$6 50 net LAWN MOWERS.
Acus Buckeye, Easy & Excetsior, new list.dis 40&10 \$ Lines
Uses Fishdis 50 % Wire Clothes, Galvanized, 100 feet
Chinest, Eagle
Trusk, new list, Jan 1, 1881dis 2582 % Yale Lock Co., Flat Keydis 40 \$
BOOD LOCKS MIC
Branked
Russil & Erwin cash. Mallory, Whoeler & Co Ninick & Brittan Mfg. Co
Mallery, Wheeler & Co dis 75 \$ Nerwich Lock Manf. Co and es for cash.
Wm. Wilcox & Co
Rusull & Erwin. Mailory, Wheeler & Co Mailory, Russell & Erwin. Mallery, Wheeler & Co Marwich Lock Manf. Co
Scandinavian, "Norwich"
Penfeld Block Co., Apple, Hickory and Lignarytte
American 3 A 4
American, B, 50.00; 5, \$60.00 \$10.00 \$12.00 \$15.00 Biss.oo Bis
Pury's, Nos. 1 8 3 4 4 gr'd 5 gr'd Each
MEAT CUTTERS, American, B, 50.00 \$7.00 \$10.00 \$12.00 \$25.00 American, B, 50.00 5, \$60.00
Beef Shaver, (Enterprise Mant. Co.)dis solt to \$
Sabbias Patterns dis 70km 5 Sabbias Genuine dis 65%km 5 Sabbias Genuine dis 65%km 5 Sabbias Timed Ends dis 90km 5 Class's Hard Metal dis 90km 5 Sab Massaring, (Enterprise). dis 90 S Liscola's Pattern dis 95 Sam Nos.
Class's Hard Metal
See Nos. I 3 4 dis so 5
Nos. 1 3 10 3 40 10 10 10 10 10 10 10
HUTS AND WASHERS.
Same Nuts 196 74 55 45 54 54 54 54 54 54 54 54 54 54 54
ON MAG
Bue and Tin
PLANTING MACHINES.
Amer Plaiting Machines
Hailan Malleable Iron Co., iron planes .dis pokto \$ lack, First Quality .dis 40 \$ lack, First Quality .dis 50 \$ lack, Second Quality .dis 50 \$ lack, Second Quality .dis 50 \$ lack, Second Quality .dis 50 \$ lack .dis 5
Tity di setto (

inited pplies

ATER

e.

HE ACE ce and light,

DEAL

NN.

Dery

RON

EO.

_	
**	Plane Iron, Ohio Tool Codis os \$\frac{1}{2}\$ Plane Irons, Sandusky Tool Codis os \$\frac{1}{2}\$ Middlesex Mig. Co., single and cutdis soks \$\frac{1}{2}\$ Middlesex Mig. Co., double
	Button's Patent. dis politics Hall's Pat. Compound Lever Cutting Nippers, No. s, § in fir. sp; No. 4, y in., fir \$\frac{1}{2}\$ don.softio \$\frac{1}{2}\$ Gas Pilers. dis \$\frac{1}{2}\$ dcme Combined Piler and Wire Cutter, \$\frac{1}{2}\$-inch, \$\frac{1}{2}\$ ax \$\frac{1}{2}\$ dcme Combined Piler and Wire Cutter, \$\frac{1}{2}\$-inch, \$\frac{1}{2}\$ ax \$\frac{1}{2}\$ dcme Cutting Nipper, is-inch, \$\frac{1}{2}\$. ax \$\frac{1}{2}\$ to-inch, \$\frac{1}{2}\$. ax \$\frac{1}{2}\$ to-inch, \$\frac{1}{2}\$. ax \$\frac{1}{2}\$ and h. ax \$\frac{1}{2}\$ dcme, \$\frac{1}{2}\$. ax \$\frac{1}{2}\$ to-inch, \$\frac{1}{2}\$. ax \$\frac{1}{2}\$ and h. ax \$\frac{1}{2}\$ dcme, \$\frac{1}{2}\$. ax \$\frac{1}{2}\$ clush, \$\frac{1}{2}\$. ax \$\frac{1}{2}\$ clush, \$\frac{1}{2}\$. ax \$\frac{1}{2}\$ clush, \$\frac{1}{2}\$. ax \$\frac{1}{2}\$ clush, \$\frac{1}{2}\$. ax \$\frac{1}{2}\$ clush \$\fra
1, 15 t,	Disston's. Stanfey R. & L. Co.'s Pat. Adjustable.dis 658toRto S Stanley R. & L. Co.'s Non-Adjustable.dis 658toRto S Stanley R. & L. Co.'s Non-Adjustable.dis 658toRto S Chapin's Patent Adjustable.dis 658toSto S Chapin's Non-adjustable.dis 658toS Standard Rule Co. s Non-Adjustable.dis 658toS Standard Rule Co.'s Non-Adjustable.dis 658toS
8	Pocket Levels PRESSES (Fruit and Jelly). Shepard's "Queen City"
*	Small. Med. Large.
* * *	Per 100 feet
***	Stair, Black Walnut
***	Chapla's dis Sos dis gokto \$ Standerd dis Sos dis gokto \$ Stavens & Co. dis Sos. Ivory dis gokto \$ Stevens & Co. Missollaneous dis gokto \$ Sevens & Co. Missollaneous dis gokto \$
g e	Self-Heating, Charcoal
*	Baeder & Adamson's Flint, 00@1% \$4,50 % r'm. Baeder & Adamson's Flint, 4,50 % r'm. Baeder & Adamson's Flint, Assor'd 4,75 % r'm. Baeder & Adamson's Star. Baeder & Adamson's Star. Baeder & Adamson's Star. Baeder & Adamson's Marry % r'm \$6,50 % 17,50 % m. Baeder & Adamson's Marry % r'm \$6,50 % 17,50 % m. Baeder & Adamson's Barry % r'm \$6,50 % 17,50 % m. Baeder & Britan Mg. Co
	Automatic Double-Action Sain Lock and Heliam,
×	Common B. 14c. net Patent B. 17c hills. 14c. net Patent B. 15c. net Silver Braided Lake Hemp. B. 15c. oil no S Silver Braided Lake White Cotton, B. 15c. oil no S Silver Braided Lake Drab Cotton, B. 15c. oil no S Silver Lake Cable Laid, Bengall Unblesched Hemp, 17 cts. dis no S Russian Hemp, 19 cts. dis no S Russian Braided, white cotton. dis no S Samson Braided, white cotton. dis 15c. oil no S Samson Braided, white cotton. dis 15c. oil no S
	Solid Eyes, in 500 % lots and over, \$ \$\mathbb{D}\$. 1\forall c. net \$\forall a\text{USPURS.}\$ in \$\text{OSP}\$ b. 1\forall c. net \$\forall a\text{USPURS.}\$ OF FILLERS. Miles \$\forall dots, \$\forall c\text{OSC}\$, \$\forall dots, \$\forall c\text{USPURS.}\$ d
	Boynton's Lightning Cross Cuts, new list
	Hubbard, Bakewell & Co., Mill Saws, dis 40ks &
-	Atkins' Circular. dis 29 Atkins' Circular. dis 29 Atkins' Silver Steel Diamond X Cuts. \$\psi\$ ft. 75C Atkins' Concave Tooth Dexter X Cuts. \$\psi\$ ft. 35C Atkins' Special Steel Diamond X Cuts. \$\psi\$ ft. 35C Atkins' Strite and Electric Tooth X Cuts. \$\psi\$ ft. 30C Atkins' Hollow Back X Cuts. \$\psi\$ ft. signed Atkins' Shingle, Mulay, Drag, &c dis 45 \$
	Diamond Hack Saw
	Peace Circular and Mill
	Morrius
	Atkins' Excelsior
	Atkins' Excelsior
	Pamily Favorite dis godine f Family Turshulf dis godine f Scale Banns, List of Jan. 22, 1886 dis godine f SCAAPSES. Adjust. Box Scraper (S. E. L. Co.) 26, 21, 21, 31
	tor, I Handle



Horse and Mule Jewelry,

Consisting of COVERT'S PATENT SNAPS,

Chain and Web Goods. These goods have become standard with the trade, and are sold by all the leading Jobbers in General and Saddlery Hardware in the United States at manufacturers' prices.

Covert Manufacturing Co. West Troy, N.Y.



"THE OLD AND ONLY RELIABLE"

LATEST IMPROVED FORT WAYNE

ESTERN WASHER.

SOLD ENTIRELY ON ITS MERITS.

We have furnished these machines to an appreciating public for the act twelve years, during which time the demand for them has increased eadily and rapidly.

Each Machine is Warranted to give Perfect Satisfaction

We want this machine represented in every city and town, and will give liberal discounts to dealers, and will guarantee the sale and satisfaction of them. Price, No. 1 Family Size, \$6; No. 5, Large Family, \$9; No. 3, Hotel Size, \$20. Write for Catalogue and Terms to the

HORTON MFB. CO., Fort Wayne, Ind., U. S. A.



The Best on Wheels. Light, strong, convenient, and low priced. Handy to get into and out of thandy for single horse or pair. Handy for one person or more. Handy to load or unload. See for the effection, "How to spreadure direct from Hannighothers."

BRADLEY & CO. SYRACUSE, NEW YORK, or SYRACUSE, NEW YOR SYRACUSE, NEW YORK, OR SYRACUSE, NEW YORK, OR SYRACUSE, NEW YOR SYRACUSE, NEW YORK, OR SYRACUSE, NEW YORK, OR SYRACUSE, NEW YOR SYRACUSE, NEW YORK, OR SYRACUSE, NEW YORK, OR SYRACUSE, NEW YOR SYRACUSE, NE

DIRECT REPRESENTATIVES:

HUBBARD & CO.

AMERICAN SCREW COMPANY,

A. FIELD & SONS,
WHEELING HINGE COMPANY,
OLIVER BROTHERS & PHILLIPS,
THE SHELTON COMPANY.
J. P. TOLMAN & CO.
JOHN SOMMERS' SON,
NICHOLSON FILE CO.
HARTFORD HAMMER CO.
THE HENRY O. HART MFG. CO.

LAWSON & BRENIZER, HOLROYD & OO. BAKER CHAIN & WAGON IRON MFG. CO.

OLARKE BROS. & CO., BRANFORD LOCK WORKS.

Office, No. 14 W. German Street,

Axes, Shovels, Hoes and Saws, Screws, Bolts, Wire Nails, &c. - Tacks, and Nails, Wrought Goods, Butts, &c. - Heavy Hardware, Philadelphia Carriage Bolts, - Braided Saah Cord. Hammers and Sledg Screen Frames, Lull & Port Blinds, Spring Hinges, & Fork Stocks and Die Vagon Hardwar Links, Rings, & Bolts, Nuts, etc

BALTIMORE, MD.

52	
Douglas Mfg. Co	-
Beaney's	***
Wm. Rogers Manf. Co	MMMM
Standard new list, Feb. 13. Fiat Head Bright. 70 Round Head Blued	
SCREEN "RAMES AND "IXTURES. Standard Window Screens No. 1, \$\psi\$ dos \$\psi_1\$; \$\psi_2\$; \$\psi_2\$; \$\psi_2\$; \$\psi_2\$; \$\psi_3\$; \$\psi_4\$; \$\psi_5\$; \$\psi	
In Im. Bi'k White. Walnut. No. sec. \$3.75 \$5.25 \$4.00	
No. 90. 7.30 No. 9. Corners and Sticks complete for a three-floot window, \$\psi\$ does sets. \$\psi\$	
No. 156. " " B doz sets, Bronsed,	1
No. 4. " #dos sets, Bronsed # # # # # # # # # # # # # # # # # # #	ľ
No. 4%. "Bronsed, \$1.50; Nickel, \$3.00 Poor, a dos sets,	
No. 8%. " Door, % dox sets, Bronzed,	
No. 3. " Gor sets, Broased, frs.co; Nickel, fa4.co) Boughton's Adjus. Window and Door Screens.dis 25 \$	1.
Boughton's Adjus. Window and Door Framesdis so \$\times Window screen frames (Stuart's)dis so \$\times\$	П
Window screen frames (Stuart's). dis 25 \$ SHRARS AND SCISSORS. American (Cast) Iron. dee Pruning Hooks and Shears Barnard's Lamp Trimmers. dis 26 \$ Found for \$4.00 \$ Massachusetts dis 50\$ \$ Seymour's. dis 60\$ \$ Seymour's. dis 60\$ \$ Jersey Shears. dis 50\$ \$ Jersey Shears.	
Silding Door, M. W. & Co., List	Ti It to W
Ames, New List, November : 1885 . dis so \$ Griffiths . dis 50% \$ Remington's (Lowman's Patent) . dis 50% \$ Remington's (Lowman's Patent) . dis 50% \$ Rowland's . dis 60 \$ Lippincott .sew list . dis 25 \$ Humy, Sins & CO . tis 25 \$	
Wm. Rogers Manf. Co	
Covert's Soldering Ironsdis 35 Covert's Adjustable Coppersdis 35	1
Britannia	
Erindestan No. 1, 4c.; Aze, 5c. — Ne. Sand Stone. — \$ D., 6c., dis 33/62 to 5 Washita Stone — No. 1, \$ B., 5c., net. Washita Stone, Slips — No. 1, \$ B., 45c. net. Arkansas — \$1.50 \$ B., net	-
Steeldis fockto 5; full cases, dis yokto 5; Lirendis fockto 5; full cases, dis yokto 5; Mickel Platedadd \$a.yokt\$4 \$p. doz net. 7 Try Square and T Bevels	
TACES, SEADS, aC. American Iron Carpet Tacks, all kinds	1
Swedes Iron Carpet Tacks, all kinds	-
Tinned Swedes Iron Tacks	
American Iron Cut Tacks	1
Copper Tacks	-
Finishing Nails	LI
American Iron Carpet Tacks, all kinds 79/6&10 S Steel Carpet Tacks, all kinds 79/6&10 S Swedes Iron Carpet Tacks, all kinds 79/6&10 S Swedes Iron Carpet Tacks 31 kinds 79/6&10 S Swedes Iron Tacks 67/6&10 S Swedes Iron Tacks 67/6&10 S Swedes Iron Tacks 67/6&10 S Tinned Swedes Iron Tacks 67/6&10 S Tinned Swedes Iron Tacks 67/6&10 S Tinned Sing and Iace Tacks 60/10 S Tinned Tacks 60/10 S Tinned Tacks 80/10 S Ti	=
Common and Patent Brads	BE
Looking Glass Tacks 45820 \$	(bu

Light Your Dark Shops Cheaply!

GIVE TOUR MEN PLENTY OF LIGHT AND THEY WILL BO DOUBLE WORK.

The New Electric Wall Torch,



PRICE \$2.00 EACH.

In ordering, state whether you wish a Gasoline or Coal-Oil burner. Discounts to the trade.

ervoir made of the Best Cross Tin. Holds one gallon.



The Standard Lighting Co. - Cleveland, Ohio.

E Dangler Vapor Torches.

FOR Brilliant, Economical Light. For Lighting Ma-chine Works, Rolling Mills, Foundries, Saw Mills, &c.

Fully 200,000 now in use throughout the U. S. furnish ample proof of their merits

The DANGLER STOVE & MFG. CO CLEVELAND, OHIO.

Excelsior Patent Baking & Roasting Pan.



is the only Seamless Pan with a lap joint ever invented, asts and bakes equally on all sides, cooks tough meat er and saves watching and basting while cooking, id like to arrange with good firms in all the princities to handle these Pans. H. RICHEY, Sing Sing, New York, U. S. A.

STEARNS' Hay Fork Pulleys.

With Hardened Chilled Bearings.

Pins can be removed permit the rope to be put in or taken off, or for oiling. The Swivel Eyes are turned and work perfectly free.

They are the Cheapest Pul-leys in the Market.

E. C. Stearns & Co.

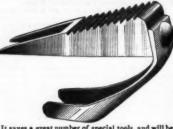
Send for Circula F



BERNHARD DIETZ, turer of Printers' Rollers, and Roller Composition. Factory, cor. Light and Mercer streets, Baltimare. Prices: Committee

Kelley's Patent Wrench Grip

For Turning Pipes, Bars, Studs ≥ Bolts.



It saves a great number of special tools, and will be found convenient for the workshop and outside job-bing. Locomotive and stationary engineers will find it a great convenience. For sale by

R. B. THOMAS,

90 Chambers St., New York.

The CLEVELAND STONE CO. MANUFACTURERS OF

GRINDSTONES

OF ALL KINDS.

MOUNTED GRINDSTONES, SCYTHE STONES, &c. Also,

Building Stone,

CURBING, FLAGGING & SAWED STONE. CLEVELAND, OHIO.

OBBINS AND

SPOOLS, Manufactured by

John L. Cheney & Co. LOWELL, MASS.

PROMPT DELIVERY. Correspondence Solicited.

The Fall River Spool & Bobbin Co. OF FALL RIVER, MASS.

SPOOLS AND BOBBINS.





The 'CONROY" Defrigerator DOOR PASTENER

For sale by leading hard-ware dealers and used by largest manufacturers. Liberal discount to the trade,

P. J. CONROY & CO.



Office and Warercoms, - 9 N. Liberty Street, BALTIMORE, MD.

1	Leathered Carpet Tacks
	Common and Ring dis m
	interprise Mfg. Co (Champion) dis
	Il Iros. 9 dos \$0.50. dis sales
	Fin Case
ı	Winsted 9 h pc. ds je
	TRAPS.
	Game, Onedda Pattern dis 6aktast Game, Onedda Pattern dis 6aktast Game, Blake's Patent dis 6aktast Mouse, Wood, Choker Weds In., 5aktast Mouse, Round Wire Weds In., 5aktast Mouse Cace, Wire Weds In., 5aktast Mouse Catchemalive dos In., 6aktast Mouse Catchemalive dos In., 6aktast Mouse Lideal Mouse for the Catches Catches In. 6aktast Mouse Mouse Indeal Mouse Weds In., 5aktast Mouse Mouse Indeal Mouse Weds In., 5aktast Mouse Mouse Indeal Mouse Mouse Mouse Indeal Mouse Mouse Mouse Indeal Mouse Mouse Mouse Indeal Mouse M
1	Mouse Cage, Wire B doz fa.50, dia ng Mouse, Catch-em-alive B doz fa.50, dia ng
١	Cyclon Mouse
I	Rat, "Decoy"
I	Ideal
١	Lothrops' Brick and Plastering
١	Clement & Maynard's
١	Rose's Brick
ı	
	Handy Truck. Penfield Block Co.'s list, 188s. Penfiels, with Cogs, No. 3. Peerless, with Cogs, No. 4. Eureka, No. 8.
ı	Cheney's Combined Vise and Anvil. Solid Box—Wilson's. Trenton. Liou City Tool Works. Manneer Drill Mig. Co's— Machinist's Vise. Beach—Wilson's. Trenton.
l	" Iron City Tool Worksdis pand
ı	Bench—Wilson's
l	Prentissdbag
١	Well Wheelsdis fokuluj Stephen's Patent Visesdis fokuluj
l	Brass and Copper, list of Jan. 27, 284
ı	
ı	Galvanized, Nos. o to 18. Market liet diag. Finned, Nos. o to 18. Market liet diag.
ı	Galvanized, Nos. o to 18. Market list the Inneed, Nos. o to 18. Market list the Inneed Broom Wire, Nos. 18 to 25. Market Annealed Fence, Nos. 28 to 25. Market Annealed Grape, Nos. 10 to 14. Market list of the Inneed Grape, Nos. 10 to 14. Market list of the Inneed Galvanized Sapanneed Barbet Fence. Market Thors. Galvanized Sapanneed Sa
	Fence Staples, Galvanized
	Buck Thorn Galvanised
1	Picture Wire. Jothes Line Wire, Galvanised. Jothes Line Wire, Galvanised. Josh Salvanised. Joseph Markette
1	Standard Penny Nalls
10000	American Adjustable
	Coes' Genume
	Coes' Pattern, Malleabledis sains Coes' Pattern, Wroughtdis leans Girard Standarddis poins
	Girard Agl
,	Full Injures XX No. eld.
-	Jniversal, XX, No. 1.
-	Jniversal, XX, No. 1each 1ag
-	Jniversal, XX, No. 18each sag Jniversal, XX, No. 28each sag Jearless, no Core, No. 1
of rest med in	Peerless, with Cogs, No. s.
1	Jaiversal, XX, No. 5/6
I	" size 11
ERM	Empire Clothes Drving Bars
	Diamond" Vegetable Grater
F	NEW SCOTT MANPG. CO'S
GOV	Rotary Peach Parer
I :	mproved Hopper Cherry Seeders. 8.75 "

our 10-ft

511

ME

RON

"GLOE

"Exce





3 TON S ately low. Agents well paid. Illustrated Casfree. Mention this Paper.
OSGOOD & THOMPSON, Binghamics, 2.1

NEW DEPARTURE IN IRON ROOFING. >

As is well known, heretofore only 8-ft. lengths in y" Crimped Iron have been made. In order to occummodate the growing and special demands of our trade, we now manufacture 6-ft., 8-ft. and 10-ft. lengths in this style.

The Cincinnati Corrugating Co.

CINCINNATI, OHIO.



ROOFING

Roofing and Siding Beaded Iron Cellis and Siding, Crimpe Edge Roofing as Siding, Roof Pain Roofer's Paper, &

"GLOBE STANDING SEAM."
"Buble Seamed V Crimped."
"Excelsior V Crimped," old style
"READY ROLLED "Capped."

ORRUGATING

Send for our new Management of the Control of the Co CORRUGATING CALABORUS, estimates and COMPANY CORRUGATING CO. CINCINNATION ONIO.

LOBE IRON ROOFING &

OLTON

ROOFING

SIDING.

RON ROOFING CEILING &c. NEW LISBON, O.

AGENTS WANTED EVERYWHERE

METAL



And VENTILATORS for Mills, Stores and Dwellings. vanised Iron and Copper Cornices and tiers. Hotal Shingles. Sheet Betal Work buildings. Send for illustrated circular.

E. VAN NOORDEN & CO. 383 Marrison Avenue, - - BOSTON.

SYKES IRON ROOFING CO., NILES, O.

SYKES'
IMPROVED
Best Roof in the
World.
Suitable for all
classes of
Buildings,
Basy Put On.



Send for Circular and Price List, and mention this Paper.

WARREN'S NATURAL ASPHALT. READY ROOFING.

Warren's Two and Three Ply atural Asphalt Ready Roofing.

wind, water and fire Proof:
odrying up, becoming brittle, melting, running under
heat of the sun, or re-coating, as with goods
made from Coal Tar.

Enaity Applica.
SEND FOR SAMPLE AND CIRCULAR No. 14

WARREN CHEMICAL & MFG. CO. 114 JOHN STREET, New York.

THOMPSON MANUFACTURING CO FOR ROOFING CRIMPED IRON DING AND CEILING FOR ROOFING

THE MAIL YOU OUR NEW ILLUSTRATED CATALOGUE THE PERSON NEW LANGES BY A ROOFING COMPANY.

CLEVELAND, OHIO.

CAMBRIDGE ROOFING CO.

Growl's Patent Roofing MADE Steel.

(0)



Also, Plain, Rolled, Corrugated Crimped Edge and Beaded, Roofing, Siding and Ceiling. CAMBRIDGE, O.

Awarded First Medal by the New Orleans Exposition.

ARCHITECTURAL

Sheet Metal Work

And · SPUNWORK · IN

BRASS, COPPER & ZINC Galvanised Iron Cornices, Window Caps, Finials, Etc.

BAKEWELL & MULLINS, Salom, O.

CONSOLIDATED ELECTRIC LIGHT COMPANY.

OWNERS

SAWYER-MAN PATENTS.



GENERAL OPPICES: Mutual Life Building, No. 2 Name Bt., N. Y. City. . 217 E. Favotto St.

No. 205 Walnut Place. No. 33 Federal Street

The DYNAMO of this Company is AUTOMATIC in its regulation, and will maintain a UNIFORM LIGHT, with ALL or ANY PORTION of the lights in Uncult. Our LAMP will not RLACKEN and will MAINTAIN its CANDLE POWER during its Guaranteed life.

ESTIMATES FURNISHED FOR THE THOMSON-HOUSTON SYSTEM OF ARC LIGHTING.

Queen City Printing Ink Co.

CINCINNATI, OHIO.

·WITH WHICH THIS PAPER IS PRINTED. CINCINNATI

MANUFACTURERS OF ALL DESCRIPTIONS OF

≪Varnishes and Sizes

→

FOR PRINTERS' USE.

New York Office, . . . 194 William Street.

Philadelphia Office, - 434 Walnut Street.

ADIA

MACH

IALDR

OOD"

N \$55.

Upright Power Hammer

It can be work nch and 36-inch can be used on other hammer k advantages super-ither cylinders, va-are trifling. It , strikes much ha louble the weight bar w haie wo Danbury,

Cut of 60-pound Hammer. The Jeffrey Mfg. Co.

ELEVATORS, CONVEYERS, DRIVING BELTS, for Handling



00 Illustrated Catalogue sent Correspondence Bales, Boxes,



April 18, 1871. levators. 25, 1876

ted for Warehouses, Stores, Factories, Public Institutions, and every place perchandise, &c., is transferred from one

JAMES BATES, Patentee, Nos. 1 3 & 5 President Street. BALTIMORE



Thos. C. Basshor & Co. BALTIMORE, MD.

everywhere.

by the WM.

Powell

CO. UNION BRASS WORKS,

PATENT PORTABLE Rope Hoist.

The best quick lift Hoist made. Will hold a load at any poist. Quick lowering, light and cheap. Rope will not cut out the wheels. Lead rope can be pulled up or down by hand instead of pulling on hand rope to raise or lower empty hook. Rope weighs less than chain for same strength, and can be obtained anywhere, while chain cannot. Five sizes now made to lift from 150x250 lbs. Send for descriptive cir-

ENERGY MFG CO.

1115 to 1123 8. 15th St. PHILA., PA.

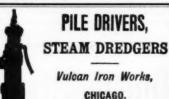
Hatchway Hoists, friction-driven Centre Grinders, and Drill Guides, &c.



\$250 WILL



ROCEWOOD, NEWCOMB & CO. 180 to 180 S. Pennsylvania St., Indianapolis, Ind.



Queen City Pattern ALEX. D. CUNNY,

Write for circular of our roved Nasmyth Pile Ham

132 & 134 E. Second Street, Cincinnati, O. Patterns made to order for Machinery, Stoves and Ornamental Work. Metal Letters made and kept in stock.

McShane + Bell + Foundry

Fine Iron and Brass Castings Made to Order.



Manufacture those celebri ted Bells for Towe Clocks, Court-House Cotton Bills, Factor ries, de. Prices and cat logues sent free. Address H. McSHANE & CO. Baltimore, Md.

THE BRADSTREET

Agency

And during that time its business has more than trebled, while its facilities have proportionately increased.

No expense is considered too great in obtaining and applying to the conduct of the business all possible improvements. With its present system for obtaining and premulgating information, this Agency is justly regarded by its patrons as authority on all matters affecting commercial credit. Its ramifications are greater and its business larger than any similar organization in the world conducted in one interest and under one management.

You are respectfully invited to investigate, and if in need of an Agency, to test its ability to serve you.

OHAS. F. CLARE, President.
Baltimore Office,—American Building,
H. KERSHAW, Supt.

E. Harrington, Son & Co.

Works and Office, 15th St. & Penna. Ave. Phila., Pa., U. S. A. s of a full line of

ron-Working MACHINERY,

Extension and Gap Lathes, Planers with Quick Return, Drills, &c., Hand Power Elevators with Patent Brake, Double Chain Screw Hoists Overshead Transway, with Switch, Turntable and Geared Truck. Gear Cutting a St

Represented by J. Q. MAY-NARD, 18 Cortlandt St., N.Y. C. E. KIMBALL, 93 Oliver St., Boston; W. BUCHNER, 100 Main St., Cincinnati.

TAPER-SLEEVE PULLEY WORKS.



EMERY WHEEL TOOL GRINDER. 55 Styles and Sizes of Glue & Emery



Wheel Co. Spring-MASS.

HEATING THE WORK.

The Grinding is done so rapidly that they will pay or themselves every year over grindstones as a gift.

DUFUR & CO. 36 N. Howard St., Baltimore.

FOR SALE.

50-ton Zero Ice Machine at half-price Correspondence solicited.

R. P. GERLACH, Box 110, Cleveland. Ohio

BAY

FORTRESS MONROE, NORFOLK and the SOUTH,

The Bay Line comprises the New and Elegant 0

"VIRGINIA," "CAROLINA" and "FLORIDA." "VIRGINIA," "CAROLINA" and "FLORIDA."
All the Comforts and Luxuries of a First Class Hotel are afforded the Traveler. Spacious and Elegant Esloons and Staterooms, furnished with an especial view to comfort. Unsurpassed Culsine, which is made a specialty with this Line. Elegant service and courteous attention. Steamers leave Baltimore daily except Sundays at 9 P. M.
At Old Point Comfort is located the SPLENTID HYGELA HOTEL, a Delightful Resort at all Sessons of the Year. For Tickets and Information, apply at Company's office,

157 W. BALTIMORE ST., BALTIMORE, Or on Board of Steamers. D 1. HILL, Superintendent. E. FROWN, Greenel Tichet Armen

body inside: -2. 3, 4, 5, 6, 7, 8, 10 and Size 10 The Wrought Iron Pipe. description, Manifolds 243-245 be pleased made with any South 0 12 quote Third prices and desired Street, of f any length required. for either Flanged Manifolds number of Philadelphia

, and will, y for erect

receipt of

specification

Sizes

for

number of any of

required size

PANCOAST

from centre build

ls of this description re to centre of pipe sh Manifolds with

Ais description o, with the following sp

Coils

this

Lumber, DRY ING COILS Leather,

Drying Coil of Wrought Iron Pi



Portable Stationary Engine AND BOILERS,

Grist 🚧 Flouring Mill Machiner

Creamery and Dairy Machin AND SUPPLIES.

Outfits and Machinery for Cheese Pactern JOHN S. CARTER, Syracuse, M.

The

Corr. Charles and Contro Streets. BALTIMORE, MD. Washington Monument,

Drying Coll o

of Wrought Iron Pipe, t Flanged Manifolds.

DRYING

BINE

ee

chiner

achin

ON THE EUROPEAN PLAN.

Strictly First-Class. Rooms Single and En Suite.

FINEST CAFÉ IN BALTIMORE.

The St. James Hotel has the pleasantest situation, amid beautiful surroundings, and is patronized by the better class of travelers. The hotel is now under a new management, and has been refitted and improved in every way. Secure rooms in dvance by addressing JOHN S. CROWTHER, Manager.

HE **STILLMAN**

Unsurpassed in its Elegance, Fine Cuisine and

Only Fire-Proof Hotel in Cleveland. Every room heated by Steam and lighted by Electric Light.

RATES \$3.50 TO \$5.00 PER DAY. Elegant suites can be secured by addressing

J. WARREN COLEMAN, Jr., Manager.



HIII

Hotel, Colonnade

Chestnut St., Cor. 15th,

k from new Penns. Raily PHILADELPHIA.

H. J. & G. R. CRUMP.

A FAVORITE RESORT FOR ALL SOUTHERN TRAVEL

LITHOGRAPHERS, BALTIMORE ND.

ARTISTIC

Color Work

Fine Commercial Engraving

Are Unsurpassed, I work executed under ca d personal supervision at pa asistent with first-class ctions. Sole proprietors of

Consistent with instructions of the ductions. Sole proprietors of the OELEBRATED LITHOCAUSTIC PROCESS Branch Establishment:

Som Belifting, LICENSEN, M.

The True Idea Vonen's Mutual Insurance OFFICIERS AND REMARKER R. PREMIETS, Proc. MANGARET HOLOOM RR. Ploc. Mandaker Holoom RR. Ploc. Mandaker Holoom RR. Ploc. Mandaker Holoom RR. Ploc. Rembert S. Roberts, H. Louise Gatos,



and ACCIDENT COMPANY.

DIRECTORS:
ELIEARDEN HARDENBURGH, Trace.
CORNELIA KAMPING, Actuary.

LEND E. HILLS, M. D., as Pitth Avenue.

JOHN A. KANPING, Attorney and Counsel, 128 Honodway, New York.

Incorporated under the Laws of New York.

THE OBJECT.

In the pieneer in throwing down the bars mination exainst women in life insurance, means of which impossible results are premised. Its content to the piene of every age, and married as well as the every age, and married as well as four in the lands, and to convention and through the piene of the every lateral product of th

BANK OF THE MITTHOFOLIS, New York City,
DEPOSITION OF REMEMY FURN.

PARKERS' LOAN AND TRUTH CO, New York City.
The officers would be pleased to furnish any further parteniars which may be districted in reliation to the Company's

affairs, or the way to obtain a policy.

Agentia are desired in every city, village and district

throughout the hashifted secretary of the country.

MOMEN'S MUTUAL INSURANCE AND ACCIDENT CO.,

IN SECURITY MESERY



PROM AND TO-

NATLHAMILTON & DAYTON R.R.

CIKEINNATHAMILTON & DAYTON R.R.

NIAGARA PALLS, TORONTO,

TOLEDO, BAGINAW, DETROIT, NIAGA
AND ALL POINTS IN MICHIGAN AND CANADA.

INDIANAPOLIS. RUSHVILLE. BLOOMINGTON,

DECATUR. PHORIA,

DELPHI, MONON LOGANSPORT, CHICAGO, D. AND ALL POINTS IN THE NORTHWEST.

YNE, KALAWAZOO, GRAND RAPIDS AND ALL POINTS IN MICHIGAN

PETOSKEY, MACKINAW,

Through Sleeping Cars run between Cincinnati and Chicage via Richmond and Air Line, also via Indianapolis and Monon Line; and Checianati, Ft. Wayne and Grand Bapide, Cincinnati, Telede and Detroit.

Parier Cars between Cincinnati and Indianapolis; Cincinnati, Tuledo and Betroit; Cincinnati, Ft. Wayne and Grand Bapide; and Chicage.

Becliang-chair Cars between Cincinnati and Kookak, lowa, via Indianapolis and Decatur, Ill.

SULIU TRAINS BETWEEN CINCINNATI AND CHICAGO.

For information apply to any Railroad Office in the United States or Canada. In Cincinnati, O., at City Ticket Office, N. W. corner Fifth and Vine Sts.; Depot Ticket Office, Fifth and Hoadly Sta.; also General Passenger Agent's Office, No. 200 West Fourth Street.

CHAS. H. ROCKWELL.

C. C. WAITE, Vice-Frest, and Gen'l Manager.

CHAS, H. ROCKWELL, Gen'l Pass'r and Ticket Agent.

PIEDMONT AIR LINE.

RICHMOND & DANVILLE R.R. CO.

Washington, D. C., and Richmond, Va.,

To Atlanta, Augusta, Columbia, Asheville, Raleigh, Greensboro, Salisbury, Goldsboro, Birmingham, Montgomery, Vicksburg, Shreveport, Mobile, New Orleans, Texas, Mexico and California, and the South and Southwest.

Pullman's Palace Buffet and Drawing-Room Sleeping Cars without change to Atlanta, New Orleans, Augusta, etc.

For maps, time-tables, rates of passage, freight, etc., apply to nearest Station Agent of the Pindmont Air Line, or to any Railroad Agent of principal lines North or South.

PEYTON RANDOLPH, General Manager.

JAS. L. TAYLOR, Gen. Pass. Agent.

Chesapeake & Uhio H

Solid Trains from Washington.

LEAVE WASHINGTON, B. & P. STATION: Day Express for Charlottsville, Staunton, Clifton Forg Day Express for Char-rton, Ashland, &c., &c.

11.34 A. M. Pay Express for Charlottevine, Staunton, Cinton Forge, Charleston, Hunington, Ashland, &o., &o.

5.30 P. M. Louisville and Cincinnati Express. Pullman Cars and a Solid train to Louisville and Cincinnati, making all Western and Southwestern connections.

Washington Ticket Office,

513 Pennsylvania Avenue,

JOHN MUIR, General Traffic Manager.

C. H. CHAPIN, Northeastern Passenger age.
H. W. FULLER,
General, Passenger Ast.



Issues Policies of Insurance after Careful Inspection of the Boilers, covering Loss or damage to property, and Loss of Life and Personal Injury

ARISING FROM STEAM BOILER EXPLOSIONS.

Full information concerning the plan of the Company's operations can be obtained at the COMPANY'S OFFICE, Hartford, Comm., or at any agency.

M. ALLEN, Prest. W. B. FRANKLIN, Vice-Prest.

J. M. ALLEN, President. Etna Fire insurance Co.

F. W. CHERTY, Aust. Treas. Chency Bros. Silk Hig. Co.
CHARLES M. HEAGE, of Beach & Co.
DANIEL, PHILLIPS, or Adams Express Co.
R. W. H. JARVIS, Pres't Octive Fire Arms Infg. Co.
TRIVIAGO, EMPRES, Pres't Octive Fire Arms Infg. Co.
TRIVIAGO, EMPRES, Pres't Octive Fire Arms Infg. Co.
TRIVIAGO, EMPRES, Pres't Octive Fire Arms Infg. Co.
LEVERATT BRAINADL, CO.
LEVERATT BRAINADL, Co.
BRAINCH, C. BORGHOS, Attorney-ti-Law, Hartford.

CLAPP SPOCKER, N. E. Managor Adams. Express Co.
Bridgepoort, Cos. S.

WAY, New Your. | LAWFORD & McKIM, Agents for Maryland, 22 Second St., Baltimore, MA.

DOES NOT



PURELY

Vegetable

Warranted to remove and prevent incrustations in Steam Boilers and Pipes, and not to destroy packing of any description. Put up in barrels and half barrels. By its use you will save

Fuel, Boiler Explosions and Expensive Repairs.

 \overline{M}

In order to introduce it to the steam users in the South, we will send it on trial for 30 days. If it does not stand a satisfactory test, NO CHARGE will be made. Address the manufacturers for any further desired information.

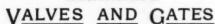
53 22d Street,

CHICAGO, ILL.

REFERENCES:

Grand Pacific Hotel, Chicago; James O'Brien, Foundry, Chicago; Keith Bros. & Co., Wholesale Hats Chicago; Calumet & Hecla Mining Co., Calumet, Mich.; Jonathan Thomas, Lumber, Topeka, Kas., and hundreds of others who are using Union Boiler Solvent with beneficial results.

VALVE MANUFACTURING CO



FOR

Steam, Water, Gas, Ammonia, Etc. Gate Fire Hydrants, with and without Independent Nozzle Valves.

ALL WORK GUARANTEED.

General Office Works, INDIAN ORCHARD, MASS.

Treasurer's Office, 72 Kilby & 112 Milk St., Boston





URTIS PRESSURE REGULATOR

FOR

STEAM, WATER AND AIR,

CURTIS RECULATOR CO.

OFFICE AND MANUFACTORY: 160 BEVERLY STREET, BOSTON.

938 to 954 River Street, and 67 to 83 Vail Avenue,





Also Fire Hydrants, Yard and Wash Hydrants, Check and Foot Valves



Gin & Machine Co.

MEMPHIS, TENN., U.S. A.

NGINES, BOILERS,

Cotton Gins, Gin Feeders and Condensers, And the Celebrated "MILBURN" Wood Split Pulley, with Bushing System.

The best and lightest Pulley made. Every one guaranteed. Send for catalogue, testimonials and price-lists. We have the largest works of the kind in the world. Will send one of our Wood Split Pulleys



for thirty days' trial, free of charge, if it fails to meet our warranty.

Milburn Gin & Machine Co.

Send for Illustrated Circular and Price-List.

THE RED JACKET STEAM BOILER

Flue Blower

In the Market.



Easy to Operate ECONOMIZES FUEL

STEWART HEATER CO., 19 and 21 Clinton St., Buffalo, N.Y.

ESTABLISHED 1832 ON PRESENT PREMISES.

The Best



Therefore BUY OUR

10

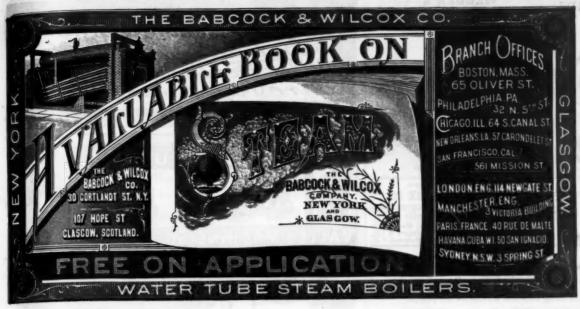
-OR-

Perfect Oils

The above are our specialties in MACHINERY OILS, and are We can give you anything in the OIL LINE, any grade, the price manufactured. very lowest prices. Correspondence solicited.

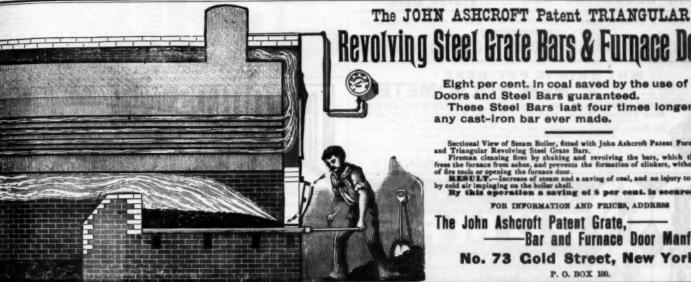
ROBINSON & SON, MANUFACTURERS AND DEALERS IN OILS

217 South Street, Baltimore, Md.



BABCOCK & WILCOX BOILERS

** SOUTH **



Eight per cent. In coal saved by the use of these Doors and Steel Bars guaranteed. These Steel Bars last four times longer than

any cast-iron bar ever made.

Sectional View of Steam Boiler, fitted with John Ashcroft Patent Furnace Door and Triangular Revolving Steel Grate Bars.

Fireman cleaning fires by shaking and revolving the bars, which thoroughly frees the furnace from ashes, and prevents the formation of clinkers, without the use of fire tools or opening the furnace door.

RESULT:—Increase of steam and a saving of coal, and no injury to the boiler by cold air implinging on the boiler shell.

By this operation a saving of 8 per cent. Is secured.

FOR INFORMATION AND PRICES, ADDRESS

The John Ashcroft Patent Grate, -Bar and Furnace Door Manfg Co. No. 73 Gold Street, New York.

P. O. BOX 100.

0.

The.

party, al, free ails to

in

GO.

ER

S FUEL

It stands d prices to

efore

OUR

III

R-

ct Oils

st oils for y grade, al

DILS

Are you putting cold water into your boiler ?

You can heat it boiling hot with the exhaust steam out of your engine.

You would save TWENTY-FIVE PER CENT. of the fuel required to do the same work without a

Feed Water Heater. Send for our catalogue on this subject,



Charlotte, N. C.



3500 in ACTUAL USE, all giving the best satisfaction. Estimates furnished on a

PIERCE, BUTLER & PIERCE MFG. CO., DLE MANUFACTURERS. SYRACUSE, N. ENERAL (GEG. B. COBBL DT WIBIAM SL. New YORK, N. CRANE BINOS. MFG. CO., Chicago, R. C.



Promote carelessness, you are greatly mistaken. There is not a man living, be he skilled engineer or negro stoker, who will not, from the very nature of things, watch the water closer with than without them. They are as certain to not whistle if the water is right as they are to whistle if it is wrong, and those in attendance take good care to keep it right. Through extra watchfulness and these automatic alarms the best economical results are obtained, and the danger of explosions and damage from too much and too little water is reduced to a minimum. They are a needed safeguard, and you can ill afford to be without them. They are for sale and warranted by dealers and boiler makers generally. Send for illustrated price-list.

RELIANCE GAUGE CO.

Argyle Building,

CLEVELAND, OHIO.

From 1-4 to 15,000 lbs. Weight.

True to pattern, sound, solid, free from blow-holes, and of unequaled strength Stronger and more durable than iron forgings in any position or for any service whatever, 40,000 CRANK SHAFTS and 50,000 GEAR WHEELS of this steel now running prove this. CRANK SHAFTS and GEARING specialties. STEEL CASTINGS of every description. Send for circulars and prices to

CHESTER STEEL CASTINGS CO.
Office, 407 Library St., Philipdelphia. Works, Charter,

Subscribe to the Manufacturers' Record.

The Best Steam Pumps

FOR EVERY SERVICE.



The Hocker-Colville Steam Pump Co. 1101 N. 2d STREET,

WEBBER'S Centrifugal Pumning Portable Machinery.

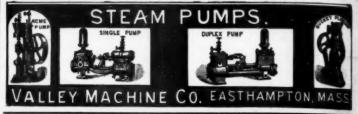


LAWRENCE MACHINE CO. New York Office, 27 CORTLANDT ST.

STREET,
ST. LOUIS, MO.

AGRETS—J. Post, Jr. & Co., Boston, Mass.; Fairbanks & Co., St. Louis, Me.; H. P. Gregory & Co.,
San Francisco, Cal.: R. H. Buchanan, Mostreal. P.O.

Dean Bros Steam Pump Works Indianapolis, Ind. Boiler Freders Duplex Pumps, Hire Pumps, Send for Catalogue





THE VOLKER & FELTHOUSEN MIFG. CO BUFFALO DUPLEX STEAM PUMPS.

PUMP PRESSURE RECULATORS.

Last year we sold over 50 of these to the Knowles & Blake Pump Co's. Some of them were placed on large water-works pumps, where they maintain a constant and even pressure in the mains. Others are doing excellent service on fire pumps.

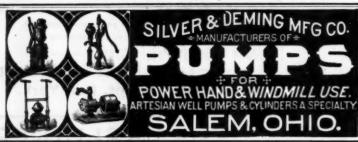
MASON REGULATOR CO., 22 Central Street,

IF YOU WANT A STRONG, HEAVY STEAM PUMP FOR HEAVY WORK OR DIFFICULT DUTY, CORRESPOND WITH C. H. BURTON STEAM PUMP WORKS, - Cleveland, Ohio. U.S.A

Por the reason that if you are interested in raising water or other NEW PULSOMETER, call your attention to the THE GHEAPEST AND BEST STEAM PUMP IN THE MARKET. PRICES LOWER THAN ANY OTHER. More Efficient, Simple, Durable, and more Economical, both as to running expenses and repairs, than any other Steam Pump. For Mining, Bailroad or Steamboat use, Paper Mill, Chemical or diss Works, Tannery, Brewery or Sugar Befineries, Draining Quarries, Cellars or Plantations, Irrigating or Hydraville Mining. Call or write for our new 8 page Illustrated Descriptive Book containing Pull Particulars, Beduced Net Frices, and hundreds of A-1 Testimonials. Mailed Free. Pulscameter Steam Pump. Co. 1-20 Liberty St. N. V.

or write for our new 80 page Illustrated Descriptive Book containing Full of Frices, and hundreds of A-1 Testimonials. Mailed Free.

Pulsometer Steam Pump Co., 120 Liberty St., N. Y.



Single, Duplex and Compound For Every Duty.



Water-Works · MACHINERY. ·

Cylinder, so inch Water Cylind Improved Low-Service Pump

THE SMITH & VAILE

DAYTON, O., and NEW YORK.

112 Liberty Street. * Plans and Estimates for Hydraulic and Oil Mill Machinery on Application. *

Eastern and Southern Agents: Thos. K. Carey & Bros., 21 South Charles Street, Baltimore, Md.; G. W., Storer, 149 N. 3d Street, Philadelphia, Pa.; D. A. Tompkins Co., Charlotte, N. C., and Atianta, Ga.

Look Carefully through this paper and you may find an advertisement of some machinery or other goods that you are in need of. Preserve this copy for future reffrence



PUMPS & HYDRAULIC MACHINERY.

13-23 OVID ST., SENECA FALLS, N. Y.

And 60 BARCLAY ST., NEW YORK. Send for new No. 14 Catalogue.

MYDRAULIC BEST IMPROVEMENTS.

Hydraulic Presses, Hydraulic Pumps, Valves & Fittings Vreeland's Transfer Jacks, Hydranlic and Screw Punches,

STILLMAN SUN & 210 E. 43d Street, NEW YORK.-



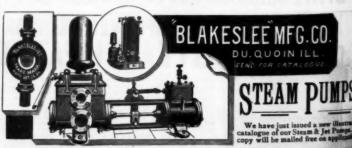
"Hero" Vertical Boiler-Feeders.

"STANDARD" DUPLEX



REMOVABLE WATER CYLINDER

M. GOWAN



MFG. CU.

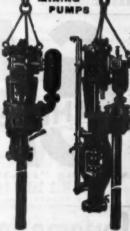
DU QUOIN, ILL 72 Washington Street,





BOILER FEEDING





The A. S. Cameron Steam Pump Works,

FOOT OF EAST 23D STREET.

*KNOWLES STEAM PUMP WORKS,

Single and Duplex Steam and Power Pumping Machinery

113 FEDERAL ST. BOSTON.

93 LIBERTY ST. NEW YORK.



tings.

N

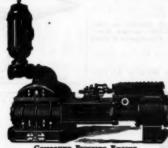


SEND FOR



WITH

Price-Lists.

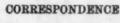




ESTIMATES



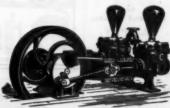
APPLICATION













ETE STEAM PUMP



NICHOLSON COMPANY, FILE



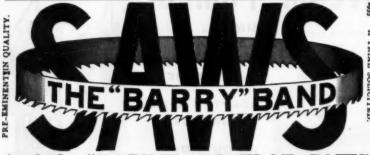


Extra Fine XF Brand of Swiss Pattern Files, FOR JEWELERS, WATCH AND FINE TOOL MAKERS, &c.

FILERS' TOOLS AND SPECIALTIES, INCLUDING FILE CLEANERS, THE MOST CONVENIENT AND DURABLE ON THE MARKET.

Manufactory and Office,

PROVIDENCE, R. I.



DUSTLESS CORN SHELLERS,

F. S. HEATH, Successor to Lippold & Heath, COTTY, Pa.

IRON CLAD PAINT CO.

Trade Mark Patented

Factory, 75 and 77 Central Way, Sec. and Treas., No. 3 Case Bu CLEVELAND, OHIO.

IRON CLAD PAINT CO.

And get the genuine article, and save liability of suit for using an article made in violation of the pat-ents issued to Wm. Green and now owned by this Company.

Iron Clad Paint is the most durable, most fire-proof and Cheapest Paint m de.

Furnished both Dry and Ground in Oil.

Used by Nearly all the Railroads.

Stokes & Parrish Machine Co.

PASSENGER

AND

FREIGHT,

HYDRAULIC,

STEAM

AND

BELT POWER.



HOISTING MACHINERY

> FOR MINES.

BLAST

FURNACES INCLINED

PLANES

EU

AND DOCK USE.

SAFETY, SPEED AND ECONOMY.

WORKS AND OFFICE:

30th and Chestnut Sts., PHILADELPHIA

BRANCH OFFICE:

95 & 97 Liberty Street NEW YORK.

GARVIN



Machinists, Manufacturers * and Dealers. * 139 to 143 CENTRE ST.,

NEW YORK.

Lathes, Planers, Drills, Milling Machines, Profilers, Screw Machines, Cutter Grinders, Gear Cutting and Milling.

Index Drilling and Rack Cutting. A good line of Second Hand Tools always on hand.



MORTON, REED & CO.



 Π A Π Π OTH-FOUNDRY. BUFFALO



WYCKOFF & SON, ELMIRA, N. Y.

WATER PIPE



SUPPLY.

CATALOGUES AND c Asphaltum coating. PRICES.

Coal and Iron Mines COKE WORKS

MACHINERY!

MACHINERY

OVER 6,000 | NEW AND REBUIL

& Hoop-iron bands

Catalogue No. 44.—Machine Shop and Blacksmith Equipment. Bo pages, each 14, in. x Catalogue No. 46.—Mood Working and Grist Mill Machinery, Water Wheels and Mill S Catalogue No. 46.—Wood Working and Grist Mill Machinery, Water Wheels and Mill S

Send us stamps for catalogue, stating exactly what class of mas saper you saw the advertisement. W. E. DREW, Agent,

S. C. FORSAITH MACHINE CO., Machinery Design, Manchester, N. H.